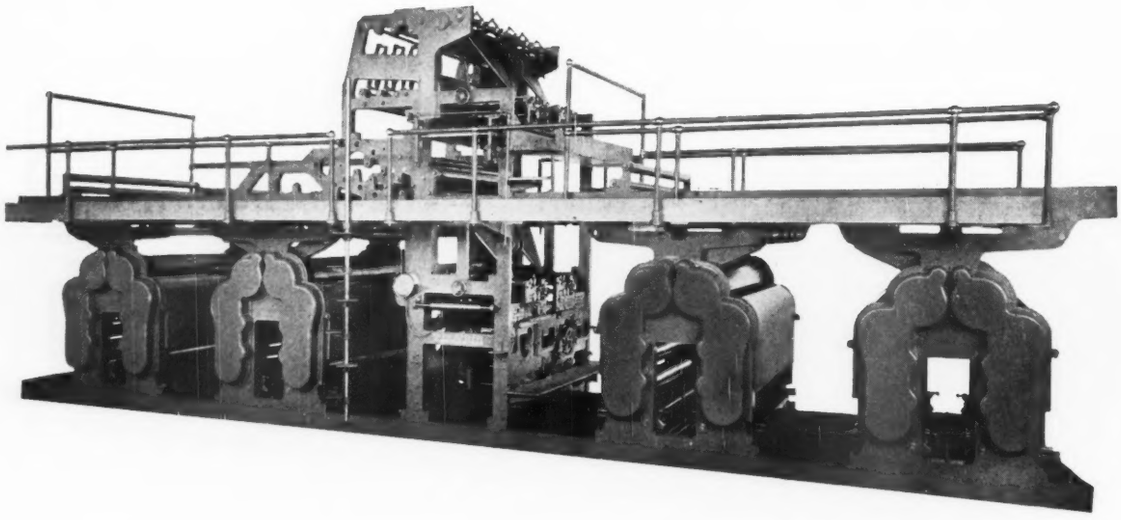
PRINTING EQUIPMENT

• A technical publication for the mechanical executive responsible for printing production, equipment and supplies in the commercial, magazine, private plant and daily newspaper field.

MODERN ENGINEERING



THE NEW SCOTT PRESS has brought startling advances to the Newspaper Pressroom. Modern Engineering has thoroughly demonstrated (heretofore principally in the Automotive Field) the great practical value of the combination of High Operating Speed with the use of modern Heat-Treated Metal Alloys and modern Automotive Lubrication. It is this combination that permits, in modern automobiles, motor trucks, tanks and airplanes, the reliable transmission of tremendous power without cumbersome overweight mechanism.

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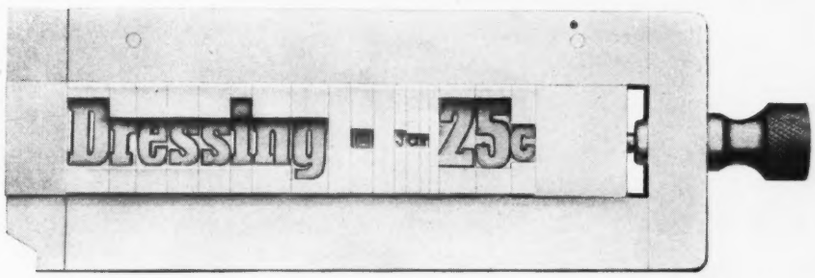
Send for the Bulletin describing the New Scott Press.

WALTER SCOTT & CO., INC.

525 SOUTH AVENUE **PLAINFIELD, N. J.**

Ludlow-set Grocery Composition Helps Increase Your Production

Ludlow stick showing matrices of different point sizes assembled and ready for casting



Even complicated food store copy is set to advantage with the Ludlow. For example, take such copy as this, frequently met with in handling grocery display:

Dressing ■ Jar 25c

As shown in the illustration, the different sizes of typeface matrices are assembled in a single line in the matrix stick, and cast on a 12-point slug. Spacing material is then added at the top and bottom.

Make-up is also simplified with the Ludlow—there is no "cutting in" of slugs or difficult justification—just full-length slugs to assemble. Ludlow logotypes are also available for some of the two-line units which are required for this kind of composition.

Ludlow-set grocery display composition is not limited to a few typefaces or type sizes, but the many attractive Ludlow typefaces result in display that attracts attention.

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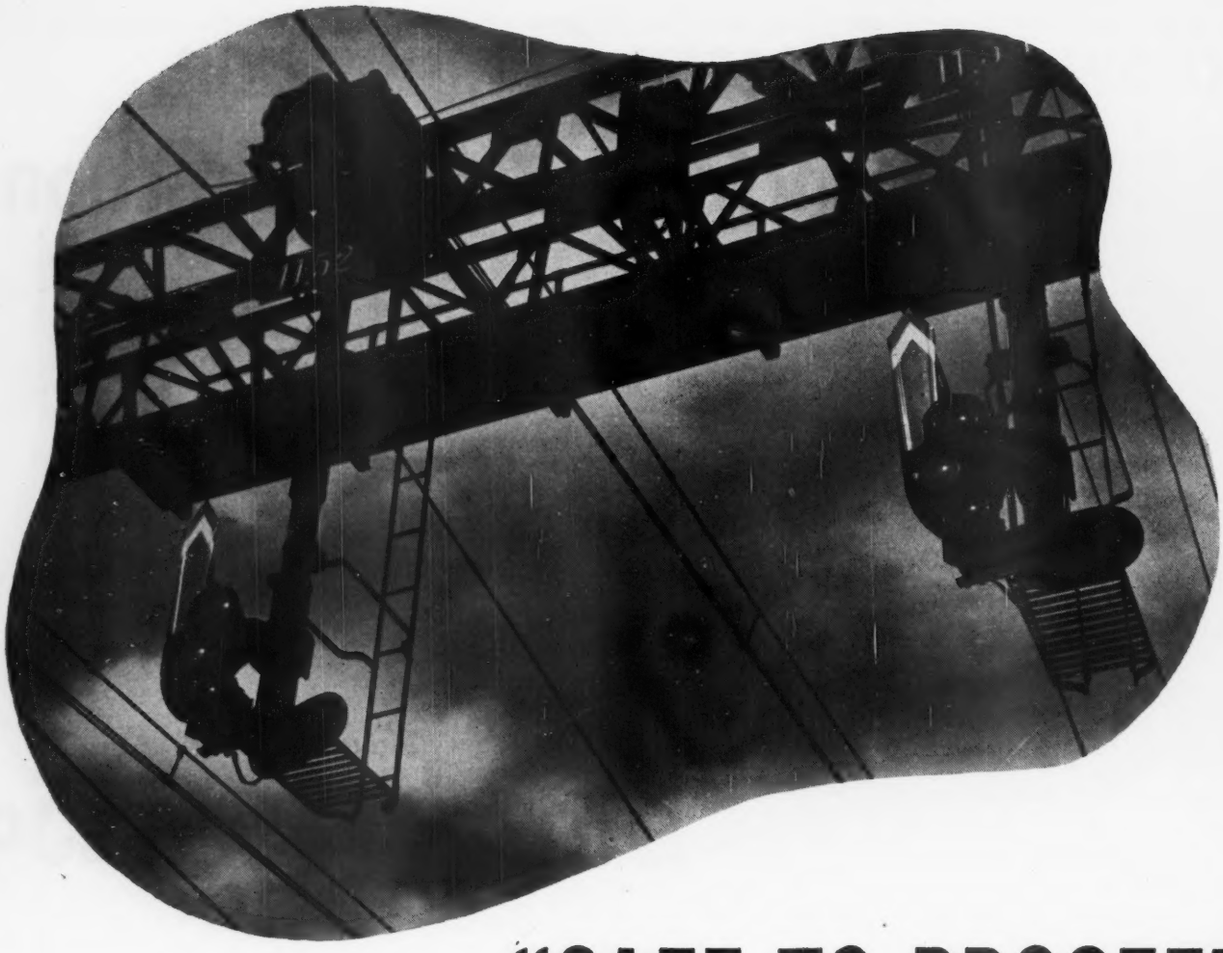

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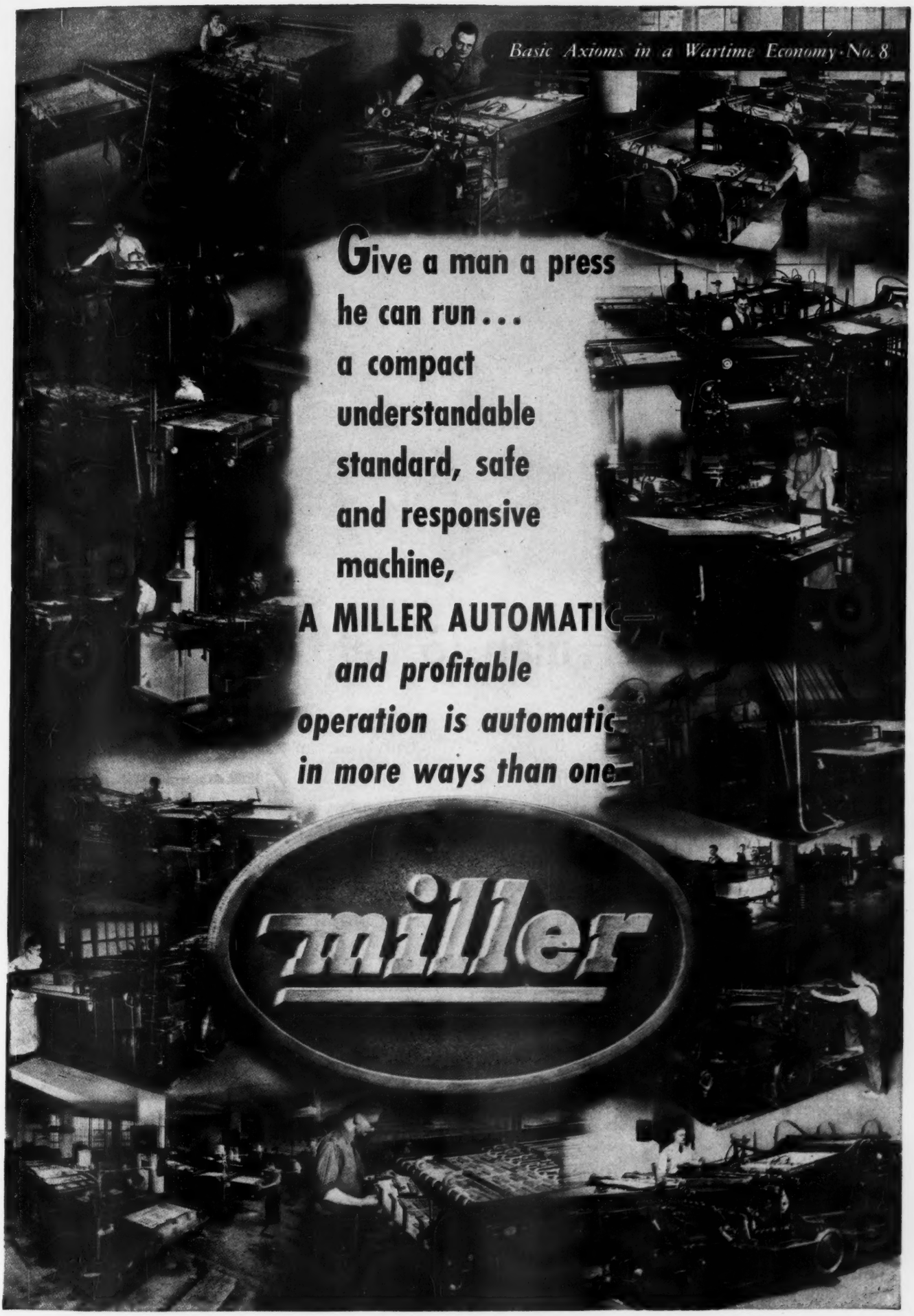
Basic Axioms in a Wartime Economy · No. 8
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A MILLER AUTOMATIC—
and profitable operation is automatic in more ways than one—
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PRINTING EQUIPMENT *Engineer*

Volume 70 Number 2

A technical publication for the mechanical executive responsible for printing production, equipment and supplies in the commercial, magazine, private plant and daily newspaper field.

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MAY 1945

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PRINTING EQUIPMENT *Engineer*

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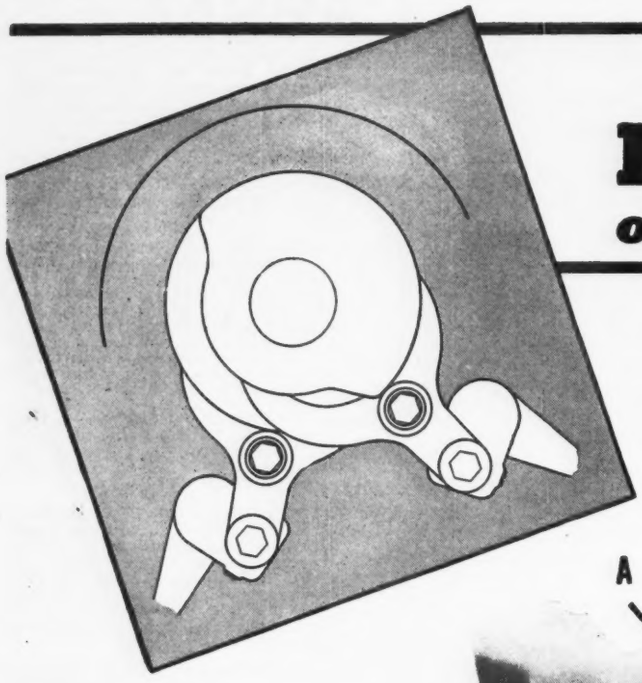

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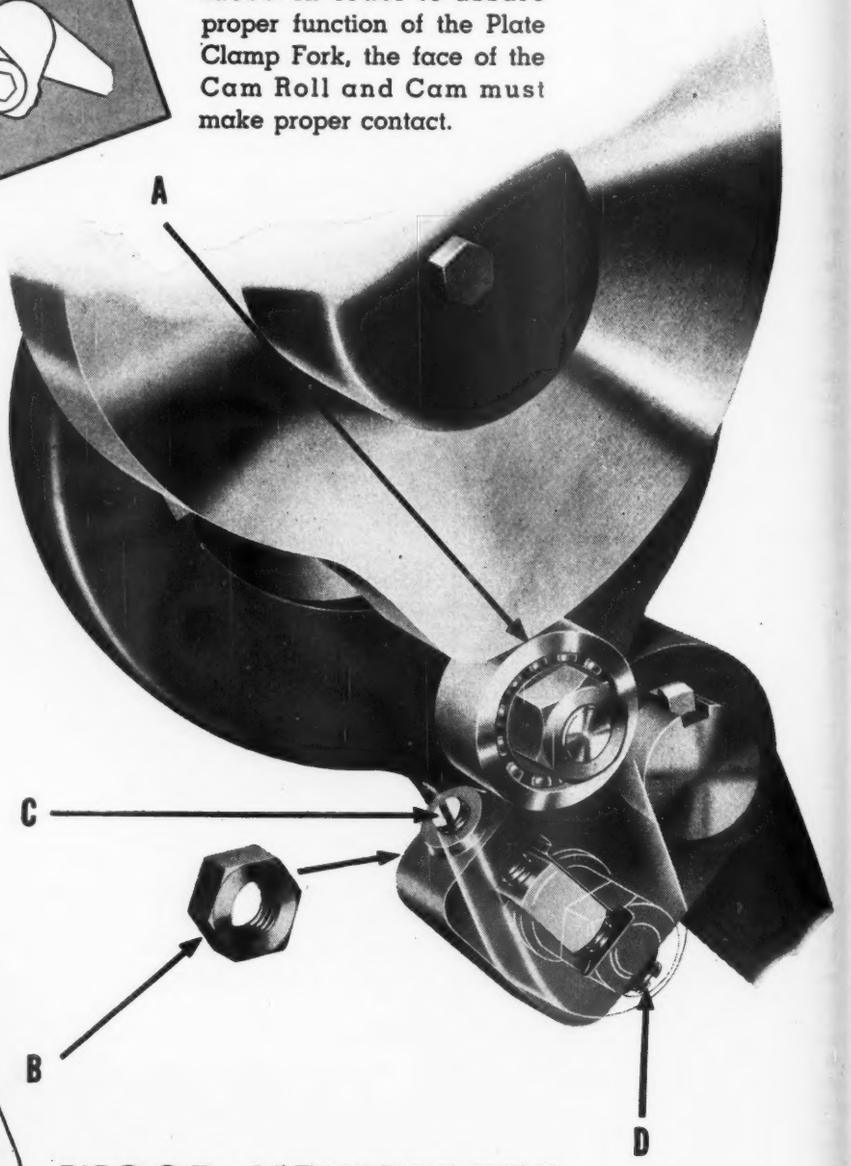

To take up the play between the Cam Roll and Cam (see A figure 1)

First – loosen nut B

Second – loosen adjusting screw (C) allowing ample distance for adjustment

Third – tighten up on adjusting screw (D) until proper contact is made

Fourth – tighten up well on adjusting screw (C)

Last – tighten nut B

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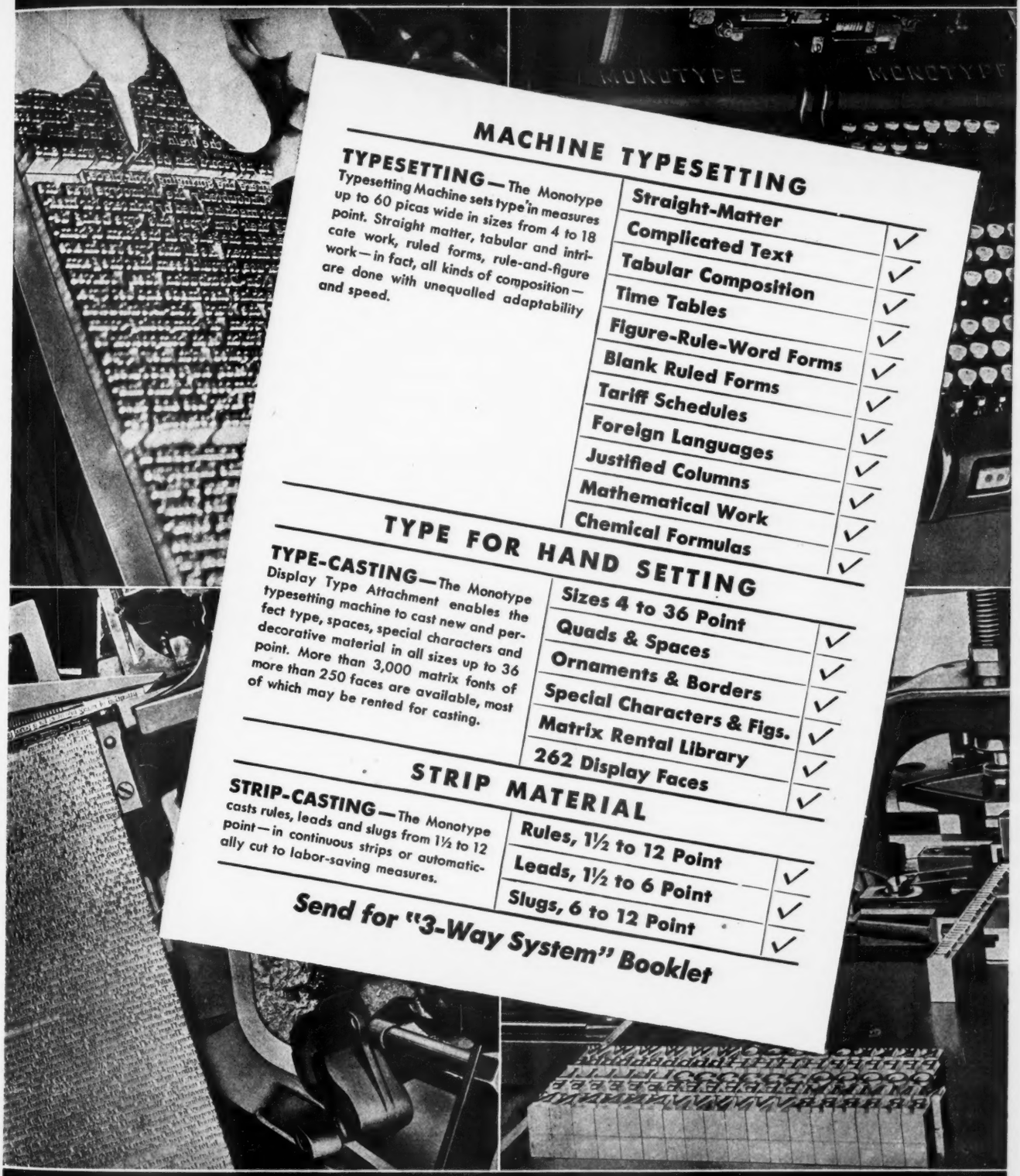

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Bloomfield, Illinois

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I'll have to admit I was a hard guy to sell. I couldn't believe Black and White was as good as it was claimed to be...and, besides, I thought that we'd have to buy new matrices. When I found out that Black and White treats the matrices you already own, and also any new ones you buy, I was willing to give it a try.

Let me hear from you if you have any more questions about Matrix Contrast Service.

It would be great if we could get together and talk about old times. Let's plan it soon.

Best regards,

Bill

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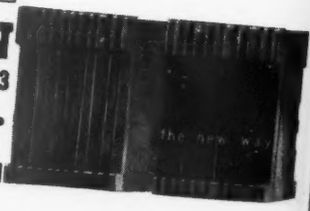


Technical Research for the Printing Industry — Speaker demonstrates need for it — Explains how research problem may be approached by smaller units in the industry — How Craftsmen may participate in research

By J. HOMER WINKLER*

**Assistant Supervisor, Battelle Memorial Institute, Columbus, Ohio. Summary of address delivered before the Rock River Valley Club of Printing House Craftsmen, Rockford, Ill., February 1945.*

PRINTING is an art and not a science. It is accomplished at present by employing one of three fundamental processes, or combinations thereof—relief, planographic, and intaglio. Production by each of these methods requires four basic raw materials—paper, ink, plates (or type), and presses. Each of these factors is a variable in the broadest sense.

Why Printing is an Art

Paper is bought under specifications defining weight, sheet size, thickness, color, coating, strength, etc., which do not necessarily indicate its printability. The printability of a paper is assumed to be the same as that of a previous lot of the same kind. A new paper must be printed to be evaluated. It is not practicable to specify those properties of paper such as smoothness, resilience, gloss, formation, and other features that apparently determine differences in printability. Even if it were possible to predict accurately and specify the properties of paper that would make it an ideal paper for printing, it would probably be difficult to manufacture a paper under present processes to conform with such specifications. Most of the technical work on paper has been concerned with manufacturing methods and not its suitability for printing.

Printing inks vary as they are received by the printer. This variation may be in color, consistency, tack, coverage, behavior on rollers, rate of absorption, or rate of drying. Successive lots from the same manufacturer or supposedly the same ink from different manufacturers usually show differences in performance. These variations are sometimes negligible, but are nevertheless present. Frequently, the printer further complicates this product by adding an ingredient, or two of his own selection to the ink before use. The rate of absorption of inks by the paper, the trapping of inks, rate of drying, and color matching are factors that are not always under the control of the printer. Ink behavior is decidedly influenced by the method of distribution used and roller behavior. Printers rollers are susceptible to differences in performance dependent upon composition, temperature as used, and their age.

The variations in the printing height of various printing elements have resulted in premakeready departments and the demand for precision plates. All printers are not convinced that printing should be accomplished from plates of a uniform thickness. Several processes of plate treatment are being used to depress the highlights and raise the dark tones. Makeready consists largely of correcting irregularities in the printing plane of the printing surfaces and of inserting irregularities in the printing plane to obtain a desired printing value. Offset lithography and gravure have plate problems equal in vexation to letterpress. Exact plate duplication for a multi-subject run in color, plate life, corrections, and register constitute formidable irregularities for the printer using these processes.

Printing presses have an individuality and it is rare that two presses of the same size and make will deliver the same quantity and quality of work with the same attention and makeready.

The degree of acceptable production attained by a printer would seem, therefore, to depend upon his ability to manipulate the variable conditions present in the four basic raw materials and coordinate these with the process limitations of the method of printing being used.

The Approach to Research

Printing, therefore, is an art—an exacting and difficult art. It will remain in this category until the fundamental reactions are thoroughly understood and until the many variables involved are standardized and controlled. This can be done only by a systematic research study of each of the individual factors. A subsequent study of their inter-relation and dependency upon each other should follow. Performance and functional behavior can be defined from the data of such research studies. Based upon this foundation, specifications for materials and mechanisms can be subsequently prepared. Using such specifications of properties and performance as a goal, it will then be possible to manufacture the kind and quality of materials desired. New methods or materials may have to be developed in some cases, while others, may require improvements, or closer control of operations. In any event, a start must be in the development of methods of measurement and in organized experimentation.

Printing Dependent Upon Many Sciences

Printing is dependent upon many sciences. Many branches of physics are applied in printing; electricity, light (color and optics), photography, electronics, photo-electricity, surface tension, and heat. Colloidal and paper chemistry, and many reactions of an organic and inorganic chemical nature take place in printing. Metallurgy and electrochemistry are applied. Evaluation of printing quality is a pyschological function. The fundamental printing reaction—the transfer of ink to paper—is of a physical-chemical nature. It is only natural, therefore, that printing should

turn to scientific research as the most promising solution for its problems. Only through knowledge can the manifestations of the sciences involved by controlled and directed. That knowledge can be gained through organized technical research.

Printing's Research Expenditures Are Low

Research expenditures for the printing industry are low compared with other industries. In general, the vigor and growth of an industry is dependent upon the percentage of the sales dollar spent on research. The radio and electrical machinery industries spent 1.75 per cent of their gross wholesale sales dollar volume in 1940. The printing and paper industry spent about 0.1 per cent during the same year, by way of comparison. Research work of a high calibre has been conducted, and is in progress, in the printing industry. Credit should be given to the International Association of Electrotypers, the Lithographic Technical Foundation, the Institute of Paper Chemistry, the Technical Division of the Government Printing Office, Book Manufacturers Institute, Printing Plates Research, Inc., and others for their excellent record of research accomplishments. Many individual companies have spent large sums of money in product and process development in the industry. It will be necessary, however, to increase research expenditures materially for the industry to attain and maintain a high level of technology in production methods.

Cooperative Research for Smaller Printing Units

The larger units of the printing industries are capable of supporting research investigations on their own particular problems. The work may be conducted in laboratories that are company owned and operated. If this investment is not warranted or desirable, the research studies may be conducted by an agency such as a research foundation.

The printing industry is comprised of a large number of small concerns in most of its branches. It is not practicable for such companies to finance individually an adequate program of research. Several companies may organize to share the costs of a research program. This plan of cooperative research is receiving serious consideration by several groups in the industry. It has been demonstrated to be a practicable plan of attack by the achievements of such groups as Lithographic Technical Foundation, Printing Plates Research, and others. A research corporation may be organized or the work may be conducted as a trade association activity. The actual research studies may be then initiated under contract at one of several available agencies. The membership of the groups then participate in the results of the investigations according to agreement.

Members of the various Craftsmens Clubs can aid materially in the encouragement of research in the printing industry by identifying problems that need research, encouraging their own company to conduct or participate in a research activity, evaluating all new processes and materials fairly after a suitable trial, and to assist in the dissemination of research results.

New York *Herald Tribune* Wins Ayer Cup Permanent Possession

INTEREST in the annual contest for the F. Wayland Ayer Cup seems to continue unabated. The contest is sponsored by N. W. Ayer & Son, Inc., Philadelphia. More than one thousand entries were received. The New York *Herald Tribune* has been awarded the F. Wayland Ayer Cup, highest recognition in the fifteenth annual exhibition of newspaper typography conducted by Ayer. Inasmuch as this is the third time the *Herald Tribune* has won this award, the Cup becomes the permanent possession of that newspaper.

The award was made on the basis of excellence of typography, makeup, and presswork, with the additional factor, important in these days of newsprint shortages, of paper-saving use of type and format.

In addition to the Ayer Cup award, honorable mentions were awarded to papers in the following circulation and format groups:

Standard-size papers of more than 50,000 circulation: First Honorable Mention, *Christian Science Monitor*, Boston; Second Honorable Mention, New York *Times*; Third Honorable Mention, *Daily Oklahoman*, Oklahoma City, Okla.

Standard-size papers of from 10,000 to 50,000 circulation: First Honorable Mention, *The Iron Mountain News*, Iron Mountain, Mich.; Second Honorable Mention, Rutland *Herald*, Rutland, Vt.; Third Honorable Mention, Dayton *Journal*, Dayton, O.

Standard-size papers of less than 10,000 circulation: First Honorable Mention, Morristown (N.J.) *Daily Record*; Second Honorable Mention, Salinas *Californian*, Salinas, Calif.; Third Honorable Mention, Virginia *Daily Enterprise*, Virginia, Minn.

Tabloids, regardless of circulation: *News*, Washington, D. C.

Judges of the Exhibition were Frank Luther Mott, dean of the University of Missouri School of Journalism; Harry Hansen, literary editor of the New York World-Telegram; Bennett Cerf, author and publisher, and Lucian Bernhard, type designer and poster artist.

In commenting on the results of the judging, H. A. Batten, president of N. W. Ayer & Son, remarked: "An unusually

NEW YORK Herald Tribune LATE CITY EDITION

1st Fights for Last Mile to Frankfurt Road, 3d Destroys Foe's Moselle-Rhine Triangle

Page one of the New York *Herald Tribune* for March 15, winner of the F. Wayland Ayer Cup, also shown, in the 15th Annual Exhibition of Newspaper Typography, held in Philadelphia, April 19, under the auspices of N. W. Ayer & Son, Inc.

difficult task faced the judges this year. In addition to the traditional considerations of typography and format, they had to consider the degree to which the normal content of the newspaper had been preserved in spite of war-necessary, space-saving changes.

"Today the saving of paper continues to be one of the gravest problems facing us. This Exhibition has turned the spotlight on many paper-and space-saving changes effected by the newspapers of America—changes which have thus far saved millions of tons of this critical war material. It is nothing short of remarkable that the papers, in face of such changes, have been able to maintain and in many cases even improve, their physical appearance and readability. Americans have reason to be proud of the important morale job their newspapers are doing in these eventful days, by continuing to bring news, entertainment, constructive editorial opinion, and advertising in the familiar and inexpensive form to which they have long been accustomed."

The papers entered in the competition will be placed on exhibition in the Ayer Galleries in Philadelphia, following which they will be sent to various cities throughout the country.

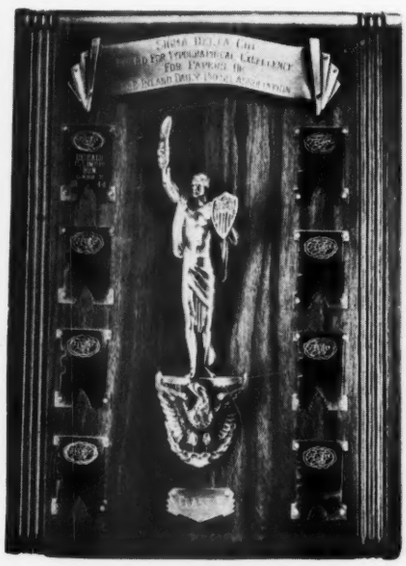
RUTLAND HERALD
Allies Rip Nazidom With New 11-Ton 'Town-Busters'
1st Army Edges Nearer Frankfurt-Cologne Super-Road
The Iron Mountain News
British Reject Nazi Proposal To Talk Peace
American 15th Army Reported In Action In Bridgehead East Of Rhine As Yanks Reach And Cut Ruhr-Frankfurt Highway
DAYTON JOURNAL
NIMITZ PROCLAIMS YANKS' CONQUEST OF IWO;
1ST ARMY ROUTS ATTACKS ON REMAGEN SPAN;
11-TON "TOWN BUSTER" BOMBS SHATTER REICH

Winners of Honorable Mentions among papers of 10,000 to 50,000 circulation in the 15th Annual Exhibition of Newspaper Typography held in Philadelphia, April 19, under the auspices of N. W. Ayer & Son, Inc. First Honorable Mention: *The Iron Mountain News*, Iron Mountain, Mich.; Second Honorable Mention: Rutland (Vt.) *Herald*, Third Honorable Mention: Dayton (O.) *Journal*.

Receives Award in Typography Contest

IN the early part of March, the Chicago *Sun* was awarded first prize in the large newspaper class by the Inland Daily Press Association. This was the sixth annual typography contest. Entries were judged at the Medill School of Journalism at Northwestern University. The *Salt Lake Telegram* won second place in the large-newspaper class. Third place went to the Salt Lake *Tribune*. The Chicago *Daily Times* and the St. Louis *Globe-Democrat* received honorable mention. The winners, large and small, were selected by the judges from 98 newspapers entered in all classes.

First place winners in each class received bronze traveling plaques, and all winners in each class received engraved certificates.



The contest was sponsored by the Medill School of Journalism at Northwestern University and the awards were provided by the Northwestern University Chapter of Sigma Delta Chi.

Other winners in the Inland contest are as follows: Class A, less than 5000 circulation: First, the Rhinelander (Wis.) *Daily News*; second, the Columbia (Mo.) *Missourian*; third, the New Ulm (Minn.) *Daily Journal*.

Class B, 5000 to 10,000 circulation: First, the Iron Mountain (Mich.) *News*; second, Idaho Falls (Ida.) *Post-Register*; third, the Fremont (Neb.) *Guide and Tribune*; honorable mention, the Midland (Mich.) *Daily News*, and the Houghton (Mich.) *Daily Mining Gazette*.

Class C, 10,000 to 25,000 circulation: First, the Warren (O.) *Tribune Chronicle*; second, the Racine (Wis.) *Journal-Times*; third, the Beloit (Wis.) *Daily News*.

Class D, 25,000 to 75,000 circulation: Honorable mention, the Pontiac (Mich.) *Daily Press*.

The judges were Charles L. Allen, director of research, Medill School of Journalism, Northwestern University; Joseph A. Brandt, director of the University of Chicago Press, and Otto M. Forkert, director of design and typography, The Cuneo Press.

Wartime Restrictions Affect Papers

Effects of wartime restrictions, limitations, and shortages were clearly evident among the entries, the judges said.

"Improvements in selection and design, which have marked the steady progress of these newspapers in recent years, are sadly lacking in the present group of entries," they said.

"There are almost no new type faces, primarily because materials have been so difficult to obtain. There have been few, if any, experiments in format, headline forms, headline schedules, style of display, departmentalization, and the presentation of new features.

"The 1945 typographical contest looks distressingly like the same newspapers that were entered in 1942, 1943 and 1944. Innovations are out; the exigencies of war have inexorably fixed typographical standards for the duration."

Certification Required

UNDER an amendment to General Conservation Order M-241, a certification is now required of every purchaser with each purchase of newsprint, stating that its use or placement in inventory will be pursuant to the Newspaper Order L-240 or the other printing and publishing limitation orders, WPB officials explained on April 12.

New England Conference Cancelled

R. H. Costello, president of the New England Newspaper Mechanical Executives Association has announced cancellation of the scheduled New England Mechanical Conference. The meeting was to have been held in October in Boston. This action was taken at a recent meeting of the board of directors of the association.

EQUIPMENT and SUPPLIES

FS Optical Contour Comparator

AN interesting recent development in the Graphic Arts is the FS Optical Contour Comparator, announced by Fish-Schurman Corporation. In addition to its uses in other manufacturing fields as a means for comparing intricate metal parts, it is now being used in the printing

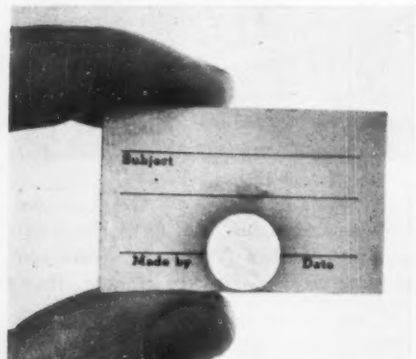


Fig. 1.—View of Faxfilm Slide with ½ in. aperture in which is placed the film subject to be projected in the F-S Comparator.

industry as a projection machine, as well as in the metallurgical field to examine metal specimens by the strip film method. It is being used in the examination of dot formation on negative and positive plates. Can be used in photo-engraving, offset-lith and rotogravure work. It can also be used for retouching, projection of kodachrome and for retouching negatives and positives.

For example, the Comparator may be used to determine the quality of printing cylinders or the surface properties of polished metal to determine its grain structure in place of the photo-micrographic method.

Slides containing replicas of the surface to be examined by means of the Comparator, a halftone area, for instance in a gravure cylinder, are prepared as follows: The section of plastic strip film is applied directly upon the metal from which the replica is to be taken. Before the film is placed on the subject area, a solvent is applied. Then an impression is taken of the cylinder or metal. The film is then peeled off (without any finger marks). The film carries with it a replica of the metallic surface. A section of the impressed film can then be mounted in a 2 in. wide by 1¼ in. deep cardboard slide which carries a ½ in. aperature through which the film may be viewed in the Comparator.

Standard strip films such as are applied to protect the celluloid noses of airplanes may be used, or it can be obtained from the firm of Rex D. McDill.

Slides, such as are described above, are placed in the receptacle and are projected upon a 9 in. by 14 in. mat glass screen. Magnifications of 13x, 25x and 50x are possible through the use of interchangeable lenses.

Machine parts may be inspected. Accurate projection of the part being inspected is instantaneous, states manufacturer. No experience is required to operate the device. A single adjustment brings the image into sharp focus. No darkening of the room is necessary.

On the same screen may be placed a sketch of the "standard" which has been drawn in the same scale of magnification on a tracing sheet, using a clear glass screen (fnrnished with the instrument).

Fig. 2.—This is a 120 line screen photo-engraved positive reproduction. It represents a 25 X enlargement of a 150 line halftone screen. This positive enlargement was secured by projecting a replica of a section of halftone engraving made on plastic film. The film replica was then mounted in a cardboard slide like that shown in Fig. 1.

To secure the enlargement, from a section of which this halftone engraving was made, the slide was projected directly upon sensitized paper placed over the viewing board or screen of the FS Optical Comparator, after which the exposure was made.

Normally, the FS Optical Comparator is intended to be used for viewing purposes by projecting the object itself which is to be examined, or a plastic film replica in greatly enlarged form upon a board or mat glass screen. The projected image thrown upon the Comparator screen itself, of course, is much brighter than the two-step reproduction shown in the accompanying illustration.

In duplicate manufacturing operations' the outline of the "standard" may also be drawn on the mat screen, if desired. The screen is adjustable to align the drawing with the contour of the projected object.

The overall size of the Comparator is 17½ in. by 18½ in. by 45 in. Net weight is 75 lbs. Stage size is 4 in. by 5 in. with 2 in. circular opening. Illumination is from a special 6.5 v., 2.75 amp. filament bulb focused into a powerful beam by an aspheric condenser lens system.

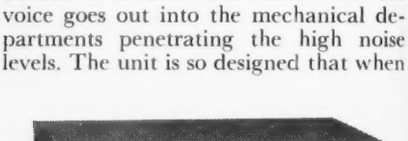
Further information may be obtained by writing Fish-Schurman Corporation direct, or *Printing Equipment Engineer* will pass along your request gladly.

Talk-A-Phone Power Booster

THE HP16 Power Booster, announced by Talk-A-Phone Mfg. Co., is designed to enable users to add a paging system to intercommunication systems. Thus the executive can talk to both office and manufacturing departments without going through the central switchboard.

The HP16 Power Booster delivers a minimum of 15 w. "voice range" power which is more than sufficient to cover the average paging system requirements. More than one booster can be used in a system where greater power levels are required.

The HP16 Power Booster will work with the majority of intercommunicating systems, states manufacturer. However, cer ain of the Talk-A-Phone models have been designed so that when the HP16 Power Booster is used it becomes an integral part of the system for both intercommunication and paging facilities. By pressing a button marked "Power," the Booster is thrown into action and the voice goes out into the mechanical departments penetrating the high noise levels. The unit is so designed that when

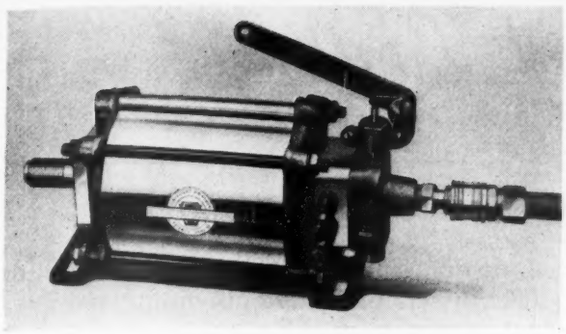


The Talk-A-Phone HP16 Power Booster measures 6 in. by 12 in. by 6¼ in. high and can be added to intercommunicating systems for paging purposes. Unit is equipped with On-Off switch, Pilot Light control and variable Volume control. Unit may be placed anywhere near master station.

the answer is received from the outlying station, the voice comes through at office volume so as not to disturb the occupants of the central office. Operation is on 110 v., a.c., 60 cy.

Decals and Certificates

The blue and red decals of the emblem indicating membership in the International Association of Printing House Craftsmen have proved to be so popular that the original supply of 2000 has been exhausted. These decals are intended to be affixed to the windshields of autos or can be fastened to windows. The International Association is considering a stock on hand to supply the local clubs as they need them.



View of Bellows BM10 Air Motor. Operates on any air line pressure up to 175 lbs.

Large Size Bellows Air Motor

A NEW Bellows Air Motor is being introduced by The Bellows Company. The new motor, the BM10, develops more than twice the piston thrust force of the standard BM5 motor on a given air line pressure. (10.32 against 4.9 times the operating air line pressure). The BM10 Air Motor retains the same basic principal of integral valve, operating and speed controls.

A number of uses for the device in the Graphic Arts industries, in addition to its many other uses in general industry, are operating cutter knives in paper or boxboard cutting, opening and closing valves, opening and closing furnace doors and operating bookbinding presses.

Bellows Air Motors are compact, air-driven reciprocating power units. They operate on any air line pressure up to 175 lbs. Manufacturer states they differ from conventional air cylinder design in that the valve and all operating controls are integral with the cylinder, permitting full and positive control over all operating phases at all times. Installation is simple. One air connection is required which may be either with flexible air hose or rigid piping.

Independent speed control valves provide precise speed control of piston rod advance and retraction. The valve operating lever is adjustable in "any angle in any plane" permitting easy connection and ready synchronization to any reciprocating machine movement.

Specifications are as follows: Overall Length: Stroke plus 7½ in. Overall Heighth: 5 1/32 in. Overall Width: 4¾ in. Standard Strokes: 1½ in. and from 3 in., by 3 in. steps up to 18 in. Special Strokes: 1 in. to 48 in. Mounts: Angle mounts for bottom, top, or side mounting standard equipment. Pivot or trunnion mounting on order. Delivery: Two weeks on AA2 or better.

Plastic Fluorescent Lamp Bases

IN place of the usual metallic base for capping fluorescent lamp tubes, Sylvania Electric Products, Inc., has announced development of a plastic base with which is incorporated a position-indicating nub. Sylvania states the bases will be in production shortly.

The most important feature of the base, asserts manufacturer, is the position-indicating nub which is molded into the shoulder of the base at right angles to the plane of the pins. There is one on each side of each of the two bases on a fluorescent lamp. The nubs enable the one replacing a tube to position the tube correctly in the holder with minimum effort.

Advantages claimed for the plastic base are that it is stronger than present metal bases, and construction will reduce possibility of pushed-in pins, the rounded shoulders permit easy insertion of lamps between lampholders, and the plastic bases will not corrode or rust in locations where acid vapors or excessive moisture are present.

Self-Lubricating Bearings

MORGANITE self-lubricating bearings are available in compositions of carbon, graphite or both. They are also supplied, if necessary, with various metallic contents for special applications. Bearings of these materials, states manufacturer, provide self-lubrication, immunity to acids, alkali and most solvents. They have low coefficients of friction and expansion. Wear is negligible on the part of the bearings as well as contacting surfaces. In operation, Morganite bearings glaze cooperating surfaces with a protective coating.

Morganite bearings are readily machineable but may be molded with tolerances to 0.001 in. They can be machined to close accuracy when desired, or super-finished. Outside diameters of ⅛ in. to 15 in. are permissible. They may be supplied in any shape—complex sleeve or split types, with any contour required. They may be plated, take molded-in fastenings and can be shrunk, press fitted, or vulcanized to rubber.

Operating speeds to 50,000 R.P.M. with thrust loads to 30 PSI or loads to 2000 PSI at slower speeds are possible. Warpage and change of shape are practically non-existing factors. Because of inherent self-lubrication, they are widely used in inaccessible locations. Their immunity to high heat (to 850 deg. F.) makes them suitable for use in steam turbines, drum dryers, and paper mills.

A Morganite bearing folder is now available. It will be sent on request by Morganite Brush Co., Inc. or through *Printing Equipment Engineer*.

Rechargeable Flashlight Battery

FORTY percent greater capacity and higher sustained bright light is claimed for a new model Rechargeable Flashlight Battery announced by the Ideal Commutator Dresser Co.

Ideal claims this rechargeable battery is capable of 40 per cent greater discharge capacity because 3 plates instead of two are used. The light is brighter with regular charging because the voltage drop is only .4 v. In two dry cells (which it replaces) the drop is 1 v.

The present battery is the result of several years of intensive research and may

be charged from any a.c. electrical outlet by means of a rectifier type charger or from the d.c. ignition system of automobile, truck or bus.

Synthetic Newspaper Roller Bulletin

Ideal Roller & Mfg. Co., 2512 West 24th St., Chicago 8, Ill., has published a four page 8½ in. by 11 in. size, bulletin entitled *Ideal Dx Synthetic Newspaper Rollers*. Inside pages present replica of Ideal's test sheet together with properties claimed for the rollers which are intended to be used on high-speed presses for black and/or color work. For feed and form positions.

Adhesives Bulletin

A new booklet on the natural and synthetic rubber adhesives which it manufactures has been published by The B. F. Goodrich Company, Akron, Ohio. Directions for the application of natural and synthetic rubber cements are included. Copies can be obtained upon request.

Synthetic rubber cements designed to meet bonding requirements for synthetic rubber products are also described and the instructions for their use given. One of the most important parts of the new publication is the discussion on how to choose the right kind of cement for various applications. The booklet also outlines the differences between the vulcanizing and non-vulcanizing types of rubber cement, and contains a table giving data on cement weights, colors, and base materials used.

Many of the general applications for rubber cements are listed in an alphabetical table, which includes the designation, by number, of the B. F. Goodrich adhesives recommended for successful bonding in each case.

Accidents and Light

By J. L. KILPATRICK*

**Illuminating Engineering Department, Westinghouse Electric and Manufacturing Company, Bloomfield, N. J.*

GENTLEMEN—the eyes have it! With about 87 per cent of our impressions being visual, there can be little doubt that the eyes hold the potential crux of accident prevention. In order to avoid any accident it is essential that the hazard be seen in sufficient time for proper action.

Seeing is the only one of our five senses which is dependent on some other factor. In other words, it merely requires the presence of a substance which will act as a stimulus to our other four senses in order that we may hear, touch, smell or taste that substance. However, while our eyes may be perfect, while there may be plenty of objects around to be seen, if there is no light—our sense of sight is useless.

Good lighting is an absolute necessity for accident prevention. If the man who tripped on a tool in the dimly lighted aisle had seen it in time to avoid the hazard, lost production time due to his broken leg would not have occurred.

If glare had not temperarily blinded him, that pattern maker would not have lost those fingers.

If that heavy shadow over the press had been eliminated, that worker would still have his hand.

If there had been good lighting, someone would have seen that casting slipping from the crane hook and that man would not have been killed.

Industrial accident can be reduced by the installation of good lighting. Hundreds of factories, large and small, have lighting systems wholly inadequate for safety. Inadequacy may exist in new installations.

Good lighting must be engineered to prevent eye-fatigue, to eliminate glare, both direct and reflected, to minimize shadows and to provide see-ability for the prevention of accidents. There are a number of light sources and innumerable lighting fixtures which, properly engineered, can provide good lighting for any specific plant. It is essential that competent illuminating engineers should be consulted when changes in lighting are contemplated.

Providing good lighting on the basis of the initial installation is not enough. The lighting system must be maintained and a depreciation factor must be provided in the design of the lighting system. Otherwise, an installation which was quite satisfactory when installed may, in a comparatively few months, produce a lighting result which is only one-half, or even one-third, as much as the original. Thus, it becomes obvious that poor lighting maintenance in itself produces an accident hazard.

No matter what kind of plant you operate, no matter how few or how many workers you employ, your accident records will be better, must as your production records will be better, if you provide good lighting which results in see-ability. But always remember that you must provide that good lighting continuously.

When workers can see clearly, quickly and easily they are able to work better, faster and more safely. They are less likely to be injured at the machines they operate or by falls from hazardous obstacles.

For safety's sake—let there be light! Make sure your workers see! Remember, that light is cheap—sight is priceless!

S. L. (Larry) Allen, who recently received his discharge from the Army after service in North Africa and Italy, is now a member of the Western sales force of Tingue, Brown and Company.

S. L. (Larry) Allen recently discharged from the service, is now on sales force of Tingue, Brown & Co.

Mr. Allen was connected with the company prior to his entering the armed forces. He is now assisting P. M. Hancher in calling on the trade in the Los Angeles area. Harold Payne and Earle Carson, two other members of the Tingue, Brown Western staff, are still in the Army.

Election of B. D. Zevin as president of The World Publishing Company, Cleveland, was announced at the company's annual meeting recently. Mr. Zevin, formerly Executive Vice President, succeeds Alfred Cahen, founder and President since 1905, who now assumes the position of chairman of the board. Mr. Zevin, 43, heads a corporation with aggregate sales of fifteen million books a year. He joined The World Publishing Company in 1934. He is a native of New York, N. Y., where he attended New York University. Known principally until recent years as manufacturers of Bibles, Dictionaries and Encyclopedias, both for the retail and premium field, the World Publishing Company under Mr. Zevin's leadership has expanded the scope of its activities with popular-priced editions of outstanding fiction and non-fiction, and is today rated as one of the major factors in the popular-price publishing field.

A. B. Bradie, formerly associated for many years in an executive capacity with the Certified Dry Mat Corporation, has been spending several months at Miami Beach, Fla. He has now returned to New York. While in Florida, he was engaged in work for the U. S. Navy at the Miami Naval Air Station. His son, Robert, has been taking flight instruction in Florida. Mr. Bradie's oldest son, Mitchel, is in the service and has been stationed somewhere along the Lido Road for almost two years.

Origin of type heights and type body sizes—

Interesting discussion of beginning of type heights and systems used for determining point sizes

By HERMAN R. FREUND*

**Chief Engineer, Intertype Corporation, Brooklyn, New York.*

I—Type Heights

WE cannot assume that the earliest used type heights were chosen arbitrarily. On the contrary, this subject must have been the matter of considerable concern to the pioneers in this field. Their problem then was the same as it is today, that is, the types of various thicknesses and widths had to be locked into a suitable form of sufficient strength. If the type lengths chosen were too short, the results in that respect were obvious. On the other hand, types made too long would have made their handling more difficult and besides that, they would have constituted an economic waste. Also, long types are more difficult to cast, as type metal has a tendency to chill before it reaches the matrix at the end of the mold.

None of the original Gutenberg types are available. Their approximate dimensions, however, have been disclosed to posterity through the carelessness of an early disciple of the printing trade. This individual, in distributing the ink by means of ink balls which were in use at the time and which were manipulated by hand, lifted a piece of type and left it lying flat on the form. The form went to press and some of the pages show the impressions of this intruder. Paper was very expensive in those days and so the defective pages were allowed to be bound into the books. This happened about 1468, about 25 years after the invention of movable type by Gutenberg.

The length of the impression of this piece of type is almost the same as our present normal type height. At that time, each printer cast his own type and it is natural to assume that the printers following Gutenberg tried to copy the type height established by him. But, in those days, there were no micrometer screws or other precision measuring tools available. Consequently, the type heights adopted by other printers deviated from the original made by Gutenberg. The tendency was that the heights became greater with each reproduction, thus creating the excess length type heights which are still in existence today.

As long as each book printer cast his own type, a difference in type height presented no problem. In fact, it has been stated that these discrepancies prevented pilfering among the employees and apprentices of the various printing establishments. But, with the advent of the independent type foundries, the advantages of standardization in this respect soon became apparent. Naturally, printers objected to changing their type and, consequently, opposed the movement of standardization. In some of the European countries this lack still exists and its realization seems more and more remote as time goes on. Just as it seems impossible for all countries to adopt a uniform measurement of length and weight, so it seems hopeless that printers of all countries will ever agree to the same type height as well as body and setwise measurements.

TYPE HEIGHTS USED IN VARIOUS COUNTRIES

Country	Type Height	Country	Type Height
Argentine	.918	India	.918
Australia	.918	Italy	.918,
Austria	.928		.928 & .977
Belgium	.928 & .9335	Japan	.918
		Latvia	.928
Bolivia	.918 & .928	Mexico	.918
		Netherlands East Indies	.978
Brazil	.918 & .928	New Zealand	.918
Canada	.918	Nicaragua	.928
Chile	.918 & .928	Norway	.928
		Palestine	.928
Cuba	.918	Peru	.918
Czechoslovakia	.928	Philippine Islands	.918
Denmark	.928 & .985	Poland	.928
Egypt	.928	Portugal	.928
England	.918	Romania	.942
Estonia	.928 & .990	Russia	.990
		Spain	.928
Finland	.986	Sweden	.928,
France	.928		.976, .980 & .981
Germany	.928, .960 & 1.010	Switzerland	.928
		Turkey	.928
Greece	.928	Union of S. Africa	.918
Guatemala	.918	U.S.A.	.918
Holland	.978	Venezuela	.918
Hungary	.928	Yugoslavia	.928
Iceland	.928		

Countries using .918 Type Height

Argentine, Australia, Bolivia, Brazil, Canada, Chile, Cuba, England, Guatemala, India, Italy, Japan, Mexico, New Zealand, Peru, Philippine Islands, Union of South Africa, U.S.A., Venezuela.

Countries using .928 Type Height

Austria, Belgium, Bolivia, Brazil, Chile, Czechoslovakia, Denmark, Egypt, Estonia, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Nicaragua, Norway, Palestine, Poland, Portugal, Spain, Sweden, Switzerland, Turkey, Yugoslavia.

Chinese in New York use .923.

The French took the first step to establish order in type dimensions. On February 28, 1723, a law was passed in Paris forcing the printers to use only "well cut letters and good paper" in their shops. It also instructed the type foundries to adopt a uniform type height which was to be the equivalent of 10½ lines of the French foot rule. Inaccurate type was to be destroyed and type foundries producing it were fined to the extent of 50 livres. This rule, no doubt, would have brought about a universal "height to paper", but, unfortunately, on account of the many different kinds of foot rules in use at the time such as the English foot, Vienna and Rhenish foot, etc., the rest of the European countries could not see their way clear to follow the French example.

Thus typefounding was on a haphazard basis for over 200 years and with the advent of the typecasting machine in 1840, conditions became intolerable. These machines cast type at a very rapid rate, but the molds used were very costly and the great variety of type heights naturally necessitated equally as many molds which hindered the full economic exploit of this machine.

In 1847, some of the German type foundries adopted for "height to paper" the French measure of 10½ lines to a Paris foot, but instead of recalculating this dimension according to their own standards, most foundries secured types cast in Paris and used them for gauges in setting their molds. Consequently, no absolute uniformity of type height throughout Germany came into use. It was not until 1904 that a definite standard of type height of 23.566 millimeters was established by Germany. This is equivalent to 0.928 in. which we know as the French type height.

The English type height has always been a little shorter than those used in Continental Europe. It is stated that the diameter of a shilling has served as the measuring stick. The American type foundries followed in part the English and the Fournier systems until, in 1886, the type foundries in the United States adopted the standard type height of 0.918 in. This standard is also used in England, Canada and most of the South American countries.

The invention of the line-casting machine by Ottmar Merganthaler was completed about the time the standard type height was adopted so that in this country and in England at least the slug type height presented no problem to be solved. However, in some of the European countries, on account of the delayed efforts at standardization, there still exists a great deal of confusion in type heights.

There are about 50 different type heights in use throughout Europe and much confusion exists in the Eastern European countries and Russia.

(Continued Next Month)

Joseph Hadovsky, Cleveland pressman, is now pressroom superintendent of the Middletown (Conn.) *Press*.

Kendall Joins U.T.A. Staff

The United Typothetae of America announces it has acquired the services of James R. Kendall. Mr. Kendall brings to this organization a wide background of experience in governmental agencies, specifically in the War Production Board and the Reconstruction Finance Corporation. His primary duties will be the handling of membership service requests under the direction of Mr. Carter in the field of Governmental Relations. This change in the management staff has been made since the resignation of Lawrence Hanson early in March. Mr. Carter continues, as he has for the past nine months, in full charge of Governmental Relations activities and as author of all service bulletins.

Most Industries Will Develop Innovations Slowly

By J. A. KINGSBURY*

**Superintendent of Printing, American Education Press, Columbus, Ohio. Summary of address delivered by Harry L. Gage, Vice President, Mergenthaler Linotype Co., before March meeting of Columbus (O.) Craftsmen's Club.*

"WILL postwar improvements make my present equipment obsolete?" In answer to this question which many printers are asking themselves, Harry L. Gage, Vice President, Mergenthaler Linotype Co., told Columbus (O.) Craftsmen at a recent meeting that in our time at least, printing will continue to be done by the three basic methods of letterpress, offset and gravure.

By this, Mr. Gage explained, he doesn't mean that producers in certain limited fields will not be able to make changes, but basically, printing will continue to use the present accepted three methods.

Mr. Gage thinks that too much emphasis has been placed upon the terrific changes that will be made in all mechanical gadgets. Most industries will develop innovations slowly. Therefore, we need not think that conservative printers will be left behind in the rush to use new methods of reproduction.

As an example, Mr. Gage cited the automobile industry as one which has a sensible attitude on the postwar manufacturing problem. The automobile makers have done a good job of reminding people that new automobiles will not be ultra-modern, ultra-streamlined, ultra-ultra-cars, but a refinement of the 1942 models for which the dies and necessary equipment will be available.

A process not likely to be changed in a hurry is letterpress printing of the daily newspaper. The paper may have from 20 to 30 pages open 20 minutes before its deadline. Yet in those 20 minutes the flexibility of the letterpress method permits the necessary operations to be completed on schedule.

Photomechanical methods, while not suited to the speed required by the daily newspaper, are fine for other types of work. Proper investigation will enable the producer to decide which method of reproduction will best serve his purpose.

Mr. Gage took cognizance of one of the headaches suffered by printers in wartime operation—that of the amateur in advertising. He suggested that an educational program be instituted for these new people who are in advertising because qualified advertising men are doing something else. In this way they can be taught the rudiments of the printing business.

Intertype Report to Stockholders

In the twenty-ninth annual report to stockholders of Intertype corporation, President Neal Dow Becker discusses not only the Corporation's financial affairs for the past fiscal year, but also reference is made to the postwar period. Operations of Intertype Corporation for the year 1944 resulted in net income of $445,537.19, after providing reserves for depreciation, taxes and other charges, except for adjustments, if any, which may result from renegotiation of war contracts completed during the year. (For the year 1943 there was held to be no excessive profit on war work done by the Corporation, and it is not considered probable that any adjustments for 1944 would affect substantially the above calculation of net income.)

As in the previous three years, Intertype's principal war products consisted of precision parts for aeroplanes. Mr. Becker comments upon the fact that recognition was received during the year from the U. S. Army for high achievement in the production of war material. This second renewal added a second white star to Intertype's Army-Navy Production Award flag.

The War Production Board permitted the manufacture of a limited amount of the Corporation's peace-time products, but only a small proportion of machinery requested was filled.

President Becker states "We have no postwar reconversion problem in a physical sense, since the production machinery which we use for war work is the same that we use for our Intertype work. But in common with other industries we shall have problems which will test the qualities of the organization even more than the problems of the war. The stockholders may feel assured that the Corporation enters the postwar period in sound condition."

ANOTHER WAY TO EXPRESS FIRST IMPRESSION TROUBLES

By AUBURN TAYLOR*

* Pressroom Superintendent, Charleston (W.Va.) *Gazette*.

The defects in first impression printing on newspaper rotary presses have been summed up in several more or less clear definitions. However, I don't feel that it is what a number of us thought it was for a number of years.

Another way in which to explain the defects in first impression printing is to say that it produces a blotted effect. When the printing surface of the second impression plate presses the paper web upon which the first impression has taken place against the second impression blanket, the printing surface of the second impression plate causes the screen dots in the first impression printing to flatten against the slick surface of the blanket on the impression cylinder; it also causes body type to flatten — in other words, causes the type to become "flat".

The more ink-repellant the second impression blanket, the more blotted effect we secure from the first impression printing.

Publishes Day Program Bulletin

The Rochester Institute of Technology, Rochester, N. Y., has published its 1945-46 Day Program and Individualized Education Bulletin. The Bulletin is 6 in. by 9 in. size and contains 72 pages and cover. Well illustrated with halftone views of buildings and departments. Courses available are mechanical, electrical, chemistry, photographic technology, publishing and printing, applied art, food administration and retailing.

Full information about the various courses available are given in the Bulletin, including entrance requirements, expenses, administrative staff and buildings and equipment. Fall registration is September 10, 1945.

On September 1, 1944, the name of the Institute was changed from Rochester Athenaeum and Mechanics Institute to the Rochester Institute of Technology.

The Bulletin may be obtained by addressing the Registrar, Rochester Institute of Technology, Rochester, N. Y.

who's an ostrich—huh?

Mebbe he doesn't bury his head in the sands, but the way the breezes titillate his tail feathers has made of him a good figure of speech, if nothing else!

Linotype Caslon Old Face and Garamond Bold No. 3 Italic

IT'S A splendid thing to see proprietor-publishers and printers concerned in the welfare of their organizations. As they grow old, together, their labors frequently are lightened—and that is as it should be.

But some of these good folk apparently fail to see the need for replacing their machines that have been aging, too—machines with years of faithful service, accompanied by depreciation and obsolescence (graying hairs and too stooped mechanical shoulders), which merit consideration.

Now is the time for all good men to come to the aid of their mechanical equipment—and, of course, we would recommend *Blue Streak Linotypes!*

★ ***Backing Victory Is Backing Everything We Are! Buy Bonds!*** ★

Our Position

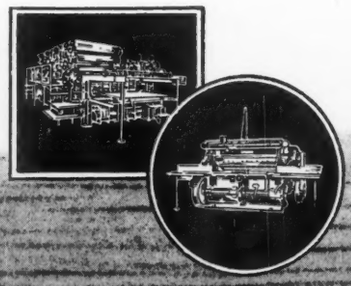
LEADERSHIP AND CONFIDENCE are the foundation of Harris-Seybold business.

The names of Harris and Seybold are synonymous with offset lithography (rotary printing) and precision cutting machinery. Our leadership has been achieved over a period of fifty years. We will maintain this position by continuing to merit the confidence of the industry.

We have learned much during the war period that will be built into our postwar products. However, we do not propose to be stampeded by any hysteria of war or postwar psychology. Theoretical applications of wartime developments to peacetime needs are hazardous until they are proved in the calculations of a peacetime economy. True progress is evolutionary, never revolutionary. Developments occur gradually.

We will not jeopardize our reputation by policies based on expediency.

Harris-Seybold equipment has acceptance as the best on the market—nothing better is available. Equipment purchased now for immediate needs should be bought with the realization that future developments are bound to come.



★

Your Position

KNOWLEDGE OF YOUR INDUSTRY is the foundation of your business.

The factual information and experience of printers and lithographers is the best basis for their appraisal of new developments in graphic arts machinery. To them "something new" must be proved to be profitable before it is deserving of consideration.

Each plant should view new equipment in the light of its own individual requirements. The needs of each plant will vary according to its present equipment (its type, its condition) and customers.

Any consideration of new equipment must be guided by common sense and knowledge of the industry. There must be a realization of the factors incident to the development of new equipment.

There is a danger, when regulations are relaxed, that action may be taken purely on the basis of expediency. There is a possibility that people may be stampeded. A planned program should be followed during the transitional period to avoid impairing operations during the long range postwar years.

The needs of the market will determine the printing equipment of the future. Printing equipment is a capital investment—it must have a profitable life over a period of years.

HARRIS • SEYBOLD • POTTER COMPANY

HARRIS DIVISION
CLEVELAND 5, OHIO
Manufacturers of
OFFSET LITHOGRAPHIC • LETTERPRESS AND GRAVURE PRINTING MACHINERY

SEYBOLD DIVISION
DAYTON F7, OHIO
Manufacturers of
PAPER CUTTERS AND TRIMMERS • KNIFE GRINDERS
DIE PRESSES • WRIGHT DRILLS • MORRISON STITCHERS

EXECUTIVE ¶s

Three shifts in the mechanical executive personnel of two daily newspapers were announced recently by Daniel Nicoll, of Paul Block and Associates. Gene Doyle, mechanical superintendent of the Toledo (O.) *Blade*, who was called back from retirement some time ago to resume his former duties, has again retired.

Gene Doyle has again retired from active duties as mechanical superintendent of the Toledo (O.) *Blade*.

Mr. Doyle was employed on the Cleveland *Leader* from 1904 to 1910; he was made press foreman on the Toledo *Blade* and served in that capacity from 1910 until 1917 when he became mechanical superintendent and served until 1942. He retired from 1942 until 1944 when William Becker who succeeded him passed away. He returned to the *Blade* as mechanical superintendent in April 1944 and expects to retire on June first.

The position of mechanical superintendent of the Toledo *Blade* has been taken by Fred Winch as of May 1. For several years Mr. Winch has been mechanical superintendent of the Pittsburgh *Post-Gazette*. Previous to that time he was associated with the Milwaukee *Sentinel* as mechanical superintendent.

J. Harold Mintun, production manager of the Decatur (Ill.) Newspapers, Inc., is now production manager of the Pittsburgh *Post-Gazette*. Mr. Mintun's

Fred H. Winch is now mechanical superintendent of the Toledo (O.) *Blade*.

association with the daily newspaper game started in 1923 when he became a printer's apprentice at the Decatur (Ill.) *Review*. He was made assistant foreman in 1929 and started in 1934 as assistant to Business Manager Fred Schaub. After spending some time in other newspaper plants, he returned to Decatur in 1935

J. Harold Mintun assumed his duties on May 1 as production manager of the Pittsburgh *Post-Gazette*.

as production manager of the three plants owned by Decatur Newspapers, Inc.

Messrs. Doyle, Winch and Mintun are well known among ANPA newspaper mechanical executives.

CHANGES in the executive personnel of R. Hoe & Co. were announced recently. Harry M. Tillinghast, former president, has been elected chairman of the board. Harold G. Cutright, former vice president and general manager, has been elected president to succeed Mr. Tillinghast.

Harry M. Tillinghast has been elected chairman of the board, R. Hoe & Co.

At the annual stockholders meeting of the company, Mr. Cutright, Harry K. Barr and Vandiver Brown are re-elected directors to represent the Class A holders for a three-year term, Arthur I. Hoe and Albert C. Simmonds, jr., were re-elected directors to represent the common stock for one-year terms each.

The company's sales in the first six months of the fiscal year substantially exceeded the comparable period last year, reported Mr. Tillinghast. March is the largest shipment month in the company's history.

Mr. Cutright has been vice president and general manager of the press division of R. Hoe & Co. since October 1944.

Harold G. Cutright, new president of R. Hoe & Co.

He is a graduate of West Virginia Wesleyan College and Harvard Business School. He commenced his business career as assistant professor of business administration at Virginia Polytechnic Institute.

Mr. Tillinghast became associated with R. Hoe & Co. in 1910 and since 1939 has been its president. Particularly with reference to printing press and associated equipment he is well known among newspaper publishers. He has been a leader in the Army Ordnance association and is now first vice president of its New York post. He is a director of the Bronx Board of Trade.

Herman A. Slater, formerly Production Manager, Frankenberg Brothers, Inc., Columbus, O., is now associated with American Type Founders, Elizabeth, N. J., as a product engineer in the Product Research and Development Department, of which Fred A. Hacker is manager. Mr. Slater is Chairman of the Research Commission, International Association of Printing House Craftsmen. He is also a director of the National Association for Printing Education and

Herman Slater is now Product Engineer for ATF.

Associate Editor, *Printing Equipment Engineer*. Mr. Slater began his career in the printing business at an early age as an apprentice compositor and pressfeeder in Kansas City. He has held positions as foreman and superintendent in commercial, specialty and paper box plants. His wide knowledge of printing equipment and processes acquired through many years of practical experience and research well qualified him for the position he now has.

Houghton Herrick, of 715 Grand Court, Davenport, Ia., and who has been caressing and occasionally losing his temper with line-composing machines for approximately 60 years, retired from active duty during the first part of April. For 25 years he has been linotype machinist in the composing room of the Davenport (Ia.) *Democrat*. Mr. Herrick was born of a family of printers and started to learn the trade but in 1895 he became interested in the (at the time) fairly-new linotype machines. He liked the possibilities of the machine and was intrigued by it, so he went to work for the Mergenthaler Linotype Co. as an assembler. Mr. Herrick also worked for a time as traveling service man for Intertype Corporation before associating himself with the Davenport *Democrat* a quarter-century ago. "Hote's" friends don't see how — even in retirement — he will be able to desert machinery. As evidence, they point to his metal and wood-working hobby. In his home workshop enough equipment exists to satisfy the mechanical tastes which he developed and used throughout his half-century of specialized work. It has been

Houghton ("Hote" to his friends) Herrick, composing machine machinist for many years, has retired from active duty on the Davenport (Ia.) *Democrat*.

said, often, that time is the taskmaster in the composing room as well as in other departments of a daily newspaper. After fighting time for many years, Herrick is still going to keep his eye on clocks—for his current hobby happens to be that of making balky electric clocks run again.—Condensed from tribute paid by and published in the March 27 issue of the Davenport (Ia.) *Democrat*.

Interchemical Corporation announces that at a special meeting of the Board of Directors held in March, Dr. A. E. Gessler was elected a vice president of the Corporation. In 1934 Dr. Gessler was appointed Director of Research for the newly formed Research Laboratories of Interchemical Corporation. Some of the products of the research laboratories include Vaporin inks, a product and process for letterpress printing with split-second drying. The Vaporin principle has been adapted to the lithographic process by the development of Vapolith inks which can be heat-dried instantaneously on web - fed lithographic presses. New moisture-set inks, marketed under the name of Vaposet, have been successfully applied to chewing gum wraps, bread wraps and similar applications. A number of other processes not exactly a part of the printing industry have also been developed.

William R. Walmsley, who has been associated with the Miehle Printing Press & Mfg. Co. for 20 years, retired on May 1. He started in the business 54 years ago. He has been connected with sales research, Carton Div. of Miehle. Mr. Walmsley has addressed many Crafts-

William R. Walmsley

men's clubs upon carton production technique and is well known among Craftsmen members. For the summer, he will make his home in Phelps, Wis. Later he will locate permanently in the Brownsville District of the Rio Grande Valley, Texas.

Don Grant, formerly superintendent of a well known lithographing plant in New York, has joined the staff of the Chemical Division of the Harris-Seybold-Potter Co., Cleveland. In addition to many years of practical experience in lithography, Mr. Grant has studied

Don Grant joins chemical division of Harris-Seybold - Potter Co. in Cleveland.

electronics for several years, has written material for the Lithographic Technical Foundation and taught photography in the lithographic courses given at the New York Trade School. At Harris, Mr. Grant will work on the research and sales program of the Chemical Division.

Lieut.-Comdr. (E) D. H. Parker, RCNVR, has resigned from the Royal Canadian Navy to resume his position as production manager of the Montreal (Can.) *Star*. Volunteer civilian instructor for ERA's and stokers at HMCS Montreal in 1940, he enlisted for active service in 1942 and was appointed engineer overseer on ship repairs, being stationed at Liverpool, N. S. For the past two years he has been on the staff of the chief of naval engineering and construction in Ottawa. Before going into service, Mr. Parker was a member of the ANPA Mechanical Committee.

Donnell F. Shortell, mechanical superintendent of the Asbury Park (N. J.) *Press*, has been elected president of the Monmouth County Press Club. The preferment came at a dinner meeting of the group held in the American Hotel early in April. Mr. Shortell succeeds Harry Talmadge of the Red Bank (N. J.)

(Asbury Park Press Photo)

Donnell F. Shortell, Mechanical Superintendent of the Asbury Park (N.J.) *Press*, elected president of the Monmouth County Press Club.

Standard. More than 50 representatives of Monmouth County daily and weekly newspapers were in attendance at the meeting.

Stanley C. Freeman, printing specialist, Bemis Bros. Bag Co., Minneapolis, Minn., will be transferred to the Bemis Engineering department at 601 South Fourth St., St. Louis, during the first part of July. He will continue as printing specialist for the company at the St. Louis plant.

WARNED TO RETURN EXCESS TYPE METAL

ALL publishers, printers and other users of type metal alloys containing lead and antimony have been warned by the Printing and Publishing Division of the War Production Board, together with WPB's Tin-Lead-Zinc Division, that failure on their part to cooperate in returning to their suppliers any excess type metal now in their possession will necessitate drastic curtailment in the uses of these metals by type metal manufacturers.

Under Lead Order M-38, which was amended March 31, 1945, because of further supply shortages, all inventories of type metal alloys containing lead are restricted to a 45-day inventory, with excess metal returned to suppliers. This restriction, WPB said, applies to all inventories of standing metal in type form as well as pig metal. This must be done to allow type metal manufacturers to continue to supply the requirements of the graphic arts and printing industry. The inventory curb must also be strictly observed by the Graphic Arts industries, WPB said.

WPB reported that the inventory restriction also applies to Government, State and municipal plants, which are advised to communicate immediately with their respective suppliers and arrange for the disposal of any and all excess type metal now in their possession.

WPB Notes

L-241 Commercial Printing Order Amended

BECAUSE of an expected shortage of printing paper in the second calendar quarter of this year, most commercial printers will be limited in the amount of paper they may accept from their mills or suppliers to 87% of their average 1944 quarterly consumption, the War Production Board said on April 4.

It now appears that there will be no second-quarter curtailment in the amount of paper a printer may consume, below his present quota, which is fixed at 75% of his 1941 consumption, WPB said. However, a printer's second quarter paper deliveries are reduced 13% below his average 1944 quarterly consumption if his over-all inventory was 32 days' supply or more on April 1, under an amendment to L-241, the Commercial Printing Order, it was explained by Printing and Publishing Division officials.

Small users consuming 25 T. of paper or less per quarter and printers with less than 20 days' supply are protected so that their inventories will not be depleted, although they may not order or accept in excess of 100% of their average 1944 quarterly consumption, WPB said.

Similar restrictions have been placed on the book and magazine publishers, operating under Limitation Orders L-245 and L-244, respectively, who use the same types of papers.

In no event may a commercial printer's inventory be greater than 50 days' supply on June 1, WPB officials said. Restrictions as to deliveries to printers with relatively large inventories will provide enough paper to make it possible for those with small inventories to accept their full deliveries, and relieve the demands on the paper mills, the officials explained.

This delivery reduction plan was adopted after an inventory survey of the printing industry, which indicated that paper supplies were adequate to supplement reduced receipts from paper suppliers in the second quarter, WPB said. Unless the commercial printing industry meets its specific problems, WPB officials said, a cut in consumption quotas will be necessary.

A new provision of L-241 states that no one may sell or deliver paper that he has reason to believe will be used in violation of the order, and no one may print on any paper, or bind it, if he has reason to believe it will be used by a publisher in excess of his allowable consumption quota under any of the printing limitation orders.

As a conservation measure, the basis weights of printing paper that may be used for a number of products were reduced. The reduced weights affect the following types of printing: Art reproduction, news letters, loose-leaf services, card indexes and a number of legal, business and functional items.

Commercial printers, both established and new, who do not require more than 1¼ T. of paper a quarter may use that amount in the second quarter without restriction under Order L-241.

Definite control over publishing activities that are not recognized as magazine, book or newspaper publishing is established under a new paragraph that covers miscellaneous publications for which the issuer receives a consideration either from the sale of copies or from the inclusion of advertising. Some of the items now covered by quota restrictions on the issuer are: almanacs; amusement, travel, railroad, airline and hotel guides; directories, calendars, diaries, appointment books, school yearbooks, song sheets, sheet music, horoscopes, pamphlets, leaflets, booklets, collections of pin-up pictures, and news letters, bulletins and services, including financial and credit news. Publishers or printers of this type of matter are limited in their annual consumption of paper to 75% of the weight of paper used for such material in 1941 or 1944, or 5 T., whichever is the greatest.

Magazine Paper Order L-244 Amended

FURTHER shortage of printing paper available to the magazine industry during the second quarter of 1945 will be met by a 13% reduction in paper deliveries to magazine publishers during that period, but no curtailment in use is required, the War Production Board said on April 4.

An amendment to WPB Order L-244, provides that all magazine publishers except those using 100 T. or less per year and those with dangerously low inventories, must reduce their paper receipts in the second quarter to 87% of their average quarterly consumption in 1944. Publishers using 100 T. or less yearly and others with inventories of 20 calendar days' supply or less on April 1 must restrict their paper receipts in the second quarter to 100% of their average quarterly use in 1944. The amended order also provides that publishers, whose inventories on April 1 amounted to 21 to 32 calendar days' supply, are entitled to second quarter delivery quotas varying from 99% to 88% of their 1944 average quarterly use.

Publishers with extremely low inventories and small publishers were exempted from the full impact of the delivery restrictions so that they may be able to continue operating at their permitted rate of consumption. The small publishers thus exempted account for only about 4% of the magazine industry's total paper consumption.

The amended order also provides that no publisher may have an inventory exceeding 50 calendar days' supply on and after June 30, 1945. This will mean that in some cases publishers will have to curtail their second quarter paper receipts more than 13% below their 1944 average quarterly use. The deeper cuts applying to publishers with high inventories will compensate for the less stringent

(*Continued on Page 34*)

Patents

For The Graphic Arts Field

The patents reported here are those issued on March 20 and 27; April 3 and 10.

This data is compiled exclusively for Printing Equipment Engineer by Invention, Inc., is verified in the United States Patent Office, and is comprehensive of all patents in the field of each heading for the dates specified.

For copies of patents listed here, specify the patent numbers and send 10c for each separate patent (stamps not accepted) to the Commissioner of Patents, Washington, D. C.

Binding, Cutting, Perforating:

2,372,115. BINDING DEVICE for holding together the cover and loose inner leaves of sheet music. A series of independent leaf holding elements are arranged end to end, each element being formed from rigidulous sheet material, such as Celluloid, to provide a longitudinal hinge barrel and a pair of opposed wing sections projecting laterally from barrel. Inner marginal portions of successive leaves to be bound may be inserted between and adhered to wing sections of selected holding elements. A hinge pin of resilient material extends through the hinge barrels of the aligned holding elements so that latter may turn on the pin. Holding elements at end of binder close outer end portions of barrel against longitudinal displacement of the hinge pin. Invented by Frederick J. Perry, Sr., North Arlington, N. J. Unassigned. Application January 15, 1944. 2 claims.

Composing Room Equipment:

2,372,158. APPARATUS FOR CHARGING MELTING POTS which may be readily attached to existing typesetting machines. The melting pot is movable and a guide on the typesetting machine carries a galley having an open end for directing used slugs from the galley into the pot for melting and recasting. Bearings are also carried by the guide and a reciprocating rod is slidably and removably mounted in the bearings. A detent connected with the rod engages a shoulder on the pot to move rod forward with the pot. A follower is slidable on the rod and has a one-way drive connection for advancing the slugs towards the pot on each forward movement of rod. A cramping mechanism carried by the follower engages the galley to resist movement with the rod during its return stroke. Invented by Andrew Olding Hebb, Newmarket, Ontario, Canada, and William A. Whitney, Toronto, Ontario, Canada. Unassigned. Application February 5, 1944. 7 claims.

2,372,407. DEVICE FOR AUTOMATICALLY CENTERING MATRICES for use in casting type slugs in Linotype and similar machines. Centering mechanism includes a pair of independently movable vise jaws with connected rack bars, gears engaging the rack bars, and other racks and pinions connected to gears and operable to move the vise jaw rack bars in opposite directions. Either of the second racks may be selectively moved a different distance to select the centering point for less than a complete line. The mechanism for causing the movement consists of serrated portions on these second racks, slidably mounted pawls vertically movable to engage serrated members respectively, and cams which are vertically adjustable to cooperate with the second racks so that either one may be moved independently of the other. Invented by Maximilian Trejo and Hector Cascante, New York, N. Y. Unassigned. Application April 11, 1942. 13 claims.

2,372,990. MECHANISM FOR TYPESETTING MACHINES through which movement of the magazines to bring any one of them to its type-discharging position simultaneously moves the molds so that the mold corresponding to that magazine is brought to its type-receiving station. A chute includes delivery mechanism adjacent its lower extremity and magazine may be moved into registry with upper end of the chute. A ring gear is mounted for rotation and a number of molds are supported by the ring gear. Any one of the molds may be moved into registry with delivery mechanism by rotation of the ring gear through gearing which cooperates with mechanism actuated by movement of the magazines. Invented by Joseph Urban, Detroit, Michigan. Unassigned. Application April 6, 1944. 9 claims.

Feeding, Folding and Delivery:

2,372,229. SHEET HANDLING APPARATUS for use with printing presses in which an electric motor raises the pile support in a feeder. A slidable control rod is urged in one direction by a spring and may be moved in opposite direction against the action of a spring to tilt a mercury switch to open motor circuit when the pile support has reached the desired elevation. A cam is connected with the end of the control rod and is spring-pressed toward the pile. As it is forced back away from the pile, the switch is tilted. Cam engages only top edge of pile, which leaves top surface of pile free of anything interfering with properly removing or feeding the sheets. Invented by Joseph Sinkovitz, Pittsburgh, Pa. Assigned to Miller Printing Machinery Co., Pittsburgh, Pa. Applicaton October 10, 1941. 8 claims.

2,372,783. ADJUSTMENT FOR RUNNING REGISTER of sheets, for multi-colored printing, slotting and similar operations. A driven shaft carrying a drum is rotated by a gear. A special driving connection between gear and shaft is provided so that the position of shaft with respect to gear may be altered while maintaining the operative connection between them. This is accomplished by an arm pivotally mounted on axis of rotation of gear and a shaft rotatably mounted on arm. Arm may be moved about pivot and locked in selected positions by means of a rotatable rod and a link rigid with the rod and pivotally connected to the arm. Invented by Charles Jacobson, New York, N. Y. Assigned to S. & S. Corrugated Paper Machinery Company, Inc., Brooklyn, N. Y. Original application September 29, 1939; divided and this application January 30, 1943. 2 claims.

2,373,222. SHEET DETECTOR for ensuring the delivery or feeding of but one sheet at a time from a supply being fed from a conveyor. A driving shaft on machine is in a transverse direction with respect to feeding direction of sheets for imparting power to detector. Detector frame which is exclusively mounted on shaft is adjustable along it according to width of sheets being fed. A first detector member is movably mounted upon frame with a detecting portion below position of a sheet to be measured and a second detector member pivots on frame above the sheet and in alignment with the first detector. Shifting mechanism is actuated by shaft upon detector frame for moving first detector up into active position close to second detector and in front of first sheet from conveyor at moment when sheet alone is between two detectors and a mechanism operated by a detector actuates a trip device upon encountering more than a single sheet. Invented by Henri Bobst, Lausanne, Switzerland. Unassigned. Application September 17, 1941. 4 claims.

2,373,441. FOLDER FOR PRINTING PRESSES that print on a running web. The mechanism folds the web lengthwise. The nose of a former has two members, the first of which is pivotally attached to second, and second is pivotally attached to the body of the former. An automatic angular adjuster regulates the two nose members with respect to each other by pressure of the web or webs being folded. Mechanisms connected to second nose member, and under control of pressman, angularly adjust the two nose members with respect to body of former. The adjuster for the former with respect to printing press, and adjusters for nose members with respect to body, may be constructed so that either may be regulated without disturbing the other. Former rollers, adjacent former nose,

WHO'S TO BLAME FOR THIS

. . . EMPTY CUPBOARD

● It's not the O.P.A.'s fault . . . the lady, shown above, had plenty of ration points. But she neglected to use them in time.

Engravers, too, can avoid being caught with their inventories down by ordering Zomo Electric Zinc and A-Z Alloy far enough in advance to provide for wartime delays in deliveries.

And remember, when you specify Zomo Electric Zinc and A-Z Alloy, you are choosing metals of unbeatable performance. Both are melted and cast in the electric induction furnace for uniform quality. Both have the improved machine-cut finish.

You're actually money ahead if you provide **in advance** for monthly deliveries of these metals, up to your allowed 60 day inventory (based on 1941 consumption). Order through your regular metal supplier.

ZOMO ELECTRIC ZINC ◆ A-Z ELECTRIC ALLOY

cooperate with the former in the longitudinal folding of the webs. Invented by Emory W. Worthington, Chicago, Ill. Assigned to The Goss Printing Press Company, Chicago, Ill. Application July 25, 1941. 8 claims.

Miscellaneous:

2,372,209. TRANSFER MEDIUM to be used with prepared papers and synthetic materials which have coated and varnished surfaces which do not readily accept printers' ink. Examples are glazed paper, candy box papers, imitation books cloth, leather, hairy surfaces such as textiles, wooden articles, etc. The medium may be used to produce unusual effects such as fluorescent effects at night, and multiple color effects. It consists of a carrier strip of glassine paper, "Cellophane," cellulose acetate, etc., carrying a releasable composition, a layer of mica powder on the coating, and a printing layer of color material and sizing. The essence of the invention is the use of the mica powder to form a cleavage layer. Invented by John Kohler, Hartford, Conn. Assigned to M. Swift & Sons, Inc. Application August 31, 1940. 4 claims.

2,373,035. LIGHT POLARIZING IMAGE and its production by printing. A sheet or film of a light-transmitting plastic, such as polyvinyl alcohol, regenerated cellulose or polyvinyl acetyl, has formed therein a design, the optical density of which is a function of the direction of vibration of light incident thereon. The sheet is prepared for formation of design by orienting the molecules of the sheet. The prepared sheet is treated by dyeing or staining to form design. This is done by printing on it from a gelatin relief, a half-tone plate, or the like with a dye or stain, such as iodine. Dye or stain is applied so that selected areas show a predetermined optical density when viewed in polarized light, and other areas show different optical densities, thus forming a design. Invented by Edwin H. Land, Boston, Mass. Assigned to Polaroid Corporation, Dover, Del. Application May 27, 1939. 19 claims.

2,373,107. MECHANICAL MOVEMENT for feeding and drawing a tape or strip to tension it, the force of tension being varied as required. A spring-pressed roller presses strip into frictional contact with the tape or strip feeding and drawing wheel. A drive between the feeding and drawing wheel and the roller maintains the wheel and roller in driving relationship when the axis of rotation of the roller is moved relatively to axis of rotation of drawing wheel. Peripheral speed of the roller is maintained greater than the peripheral speed of the strip feeding and drawing wheel to draw the strip at a speed greater than it is being fed by the wheel. Invented by Charles Hugh Duffy, Washington, D. C. Unassigned. Application July 15, 1943. 5 claims.

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BURGESS CHROME MAT

The proof of the old Chinese proverb is demonstrated every day through the use of this superior mat that makes halftone and line reproductions sparkle with attention value.

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Plate Making:

2,371,773. METHOD OF PREPARING AN ENGRAVED PLATE from a picture using a transfer film with a pellucid base sheet having a thin pellucid bonding layer on one surface. Loosely adhered to the other surface of bonding layer is a pellucid carrier layer having particles of photo-sensitive silver halide uniformly dispersed through it. Method comprises exposing transfer film through base and bonding layers to a beam of actinic light modulated by picture to form a photographic image in carrier layer and transferring carrier layer image from film to a plate, which is to be engraved, in such manner that surface of image which originally contacted bonding layer is in contact with the plate. The portions of plate defined by the image are then etched. Invented by Henry T. Neumann, New York, N. Y. Unassigned. Application December 5, 1940. 9 claims.

2,371,868. POROUS POLYVINYL CHLORIDE COMPOSITIONS useful in printing cloths and coatings for printing rollers. Besides their favorable mechanical properties, durability and ability to be cleaned easily and thoroughly, they are also able to take up the printing colors very well on account of their absorbing properties and are thus an excellent reserve of colors. They are also useful in many other industries such as for electric insulation, in the filtration of drinking water and other liquids, in therapeutic pads and plasters, etc. Particles of a high molecular weight polyvinyl chloride are mixed with 40-100% of its weight of tricresylphosphate, at a temperature sufficiently low to prevent solutions of the particles in the tricresylphosphate, to form a pulverulent to granular mass of nonadherent particles. Mixture is heated without further mixing to cause sintering of particles without complete coalescence. The porous article thus produced is said to have uniform porosity. Invented by Herbert Berg and Martin Doriat, Burghausen, Germany. Vested in the Alien Property Custodian. Application February 5, 1942. 4 claims.

2,372,665. METHOD OF MAKING A PRINTING ROLL having a removable smooth, dense metal coating of a thickness suitable for etching and printing. A rotating base cylinder having a smoothly finished surface is given a coating of electrodeposited metal. As metal is being deposited, a roller is progressively rolled over the coating under pressure in overlapping areas on a helical path along cylinder. Axis of rotation of the roller is maintained in such transverse relation to path as to insure only rolling contact between coating and roller and prevent frictional rubbing between deposited coating and roller. Invented by Arnold August Egli, St. Gallen, Switzerland, and Carl Bokenkamp, Hamburg, Germany. Unassigned. Application April 17, 1940. 4 claims.

2,372,679. COATED SHEET PRODUCT. This invention relates to processes and materials for producing transparencies suitable for making etched printing and lithographic surfaces by photographic transfer procedures. An object is to eliminate the photographing of the copy which is to be reproduced by etched printing surface, which photographing constitutes an essential step of prior art processes. A novel sheet product is used comprising a transparent backing sheet upon which is placed a light-impervious coating which can be readily displaced or removed by drawing, sketching, impressing, typing or printing. This produces a transparency suitable for use in exposing directly a resist covering for a printing surface. The coating material, which is the essence of the invention, is a tempered adhesive colloid. Invented by Harry M. Magid, Chicago, Ill. Unassigned. Application May 25, 1942. 4 claims.

2,373,060. METHOD OF PREPARING AN ENGRAVED STAMPING DIE in which the engraved portion of die is filled with a non-water-soluble resist. Unengraved portion is etched to impart a grained surface, and, to the so-grained surface, a coating of water-soluble resist is applied. Resist is washed away in the engraved portions, which surfaces are etched sufficiently to impart a grained surface. The die is coated with offset lacquer and offset developing ink and is washed with water to dissolve the resist from the unengraved portion and simultaneously remove the overlying portion of lacquer and ink coatings, leaving the engraved portion coated with offset lacquer and developing ink. Invented by George E. Sojka, Pittsfield, Mass. Assigned to Eaton Paper Corporation, Pittsfield, Mass. Application June 29, 1942. 1 claim.

2,373,087. PREPARATION OF A COPPER CYLINDER for use in intaglio printing. A carbon tissue resist produced by means of a gravure screen is applied to cylinder surface which is etched to form wells defined by walls corresponding to the clear portions of screen. The etching is carried forward until well depths are about the same and .002 to .003 of an inch deep. Wells are filled with resist material such as wax and surface is wiped clean, leaving only outer surfaces of walls exposed. Walls are then plated with a resistant metal such as chromium to a thickness of about .001 of an inch, the plating being continued long enough to extend chromium over edges and on to vertical sides of walls, providing caps for outer portions of walls. Resist is removed from wells and chromium plating is coated with a resist to protect the walls. Wells are filled with copper which may be etched in usual manner. Cylinder surface is polished, leaving it smooth with lines of chromium enclosing squares of copper. Invented by Harley C. Alger, Chicago, Ill. Unassigned. Application July 23, 1942. 4 claims.

2,373,287. PREPARATION OF PRINTING PLATES so as to have images or printing portions which, when formed by typewriting as well as by other modes of application, present a heavy ink body and are tough and durable and tenaciously attached to base. The characteristics are obtained by introducing into a normally water-

(Continued on Page 26)

Two MUSTS For Better Printing

Good clean-cut newspaper printing is always a combination of a number of important factors. Each factor plays an important part. Take, for example, molding blankets and backing felt. In order to get the best results you need the best molding blankets and felt that money can buy. That means you need Eastern Tru-Mold Cork Molding Blankets and "Flecto" Gummed Backing Felt.

Eastern TRUMOLD Cork Molding Blankets have the correct percentage of Bakelite incorporated in the cork composition binder to insure perfect density. That's why they permit sharper impressions. And this blanket has greater flexibility to hold edge-cracking to a minimum.

TRU-MOLDS are now available in "Medium," "Medium-Hard" and "Hard" density.

Sizes	1/4" Each	5/16" Each	3/8" Each	3/16" Each
20" x 24"...	$2.50	$3.75	$4.50	.....
21" x 25"...	2.75	4.00	4.75	$2.50
22" x 26"...	3.00	4.25	5.00	.....

(One size only on 3/16"—21" x 25")

"FLECTO" GUMMED BACKING FELT sticks fast on any mat, regardless of heat used in scorching. Its adhesive will not crack, peel, slip or crystallize.

More than that, you can tear "Flecto" easily and cleanly, without ragged edges.

Each and every sheet is gauged accurately and uniformly throughout and will not peel or separate in layers.

"Flecto" is soft and pliable, assuring conformity to the mat and easy shrinking with the mat.

GAUGES AND SIZES

Gauges .021, .025, .030 (Green) sheeted 18" x 24".

Gauge .035 (Red) sheeted 18" x 24".

Gauges .040, .045 (Green) sheeted 18" x 22".

Gauges .050, .060 (Gray) sheeted 18" x 22".

Cut into strips 9" or 18" long and 1/8" to 1" wide at no extra charge.

EASTERN NEWSPAPER SUPPLY CO.

9603 NORTHERN BOULEVARD — CORONA, L. I., NEW YORK

HOW one newspaper saved 67½ work days per year!

Here's a Valuable Answer...

In only a years time, as proved by a careful cost study, the Monomelt System saved one newspaper* 13½ FULL TIME WORK WEEKS, or 67½ working days . . . through efficient, *automatic handling of type metal* for casting machines.

In addition to this, output from typecasting machines was increased from 10% to 25% due to reduction in "down" time, faster casting, fewer defects in slugs and elimination of several time-killing manual operations. Known savings in dollars and cents were $686.20 for labor, plus $587.48 in dross and metal costs...a total of $1,273.68. And this doesn't include the value of boosted output.

Increases Printing Output-Per-Man

The Monomelt System offers *your* shop similar manpower and money-saving benefits. It eliminates one melting of type metal altogether, actually *improves* slug quality and saves time.

ASK FOR DETAILS about a Monomelt survey of your shop or plant. A special engineer and cost accountant will gladly show you exactly what your savings will be with the Monomelt System.

Limited amount of equipment now available.
Relieve your manpower shortage by action now!

*Daily paper using 17 Monomelt-equipped casting machines. Details on request.

MONOMELT COMPANY

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receptive base limited amounts of an agent for imparting a superficial grease-retentive character to surface of base. The grease-retentive surface is used to insure transfer of a relatively heavy typewritten image. The entire surface of plate is then treated with a lithographic etching mixture which eliminates superficial grease-retentive character from those areas surrounding the typewritten image. At the same time the lithographic etching agent cooperates with the impregnating agent in base to convert the ink image to a tough ink body fixed in the base. Invented by Ellis Bassist, Brookline, Mass. Assigned to William Craig Toland, trustee, Brookline, Mass. Application July 27, 1943. 6 claims.

2,373,357. PLANOGRAPHIC PRINTING PLATES are produced by an improved method which uses light-sensitive silver salts to provide grease-receptive printing portions. A film of gelatin containing a silver haloid is applied over a special water-receptive colloidal printing base. The light-sensitive film is exposed and developed while supported on the water-receptive colloidal base which allows exposed portions of film to become embedded in the base. Then the unexposed portions of silver salt and gelatin are completely washed away to uncover the underlying water-receptive lithographic base surface, thus avoiding preparation of gelatin for non-printing portions. The exposed portions of silver and gelatin become impregnated in, and hardened together with, underlying water-receptive layer to provide printing portions which are durable and strongly anchored in water-receptive layer. Invented by William Craig Toland and Ellis Bassist, Brookline, Mass. Assigned to William Craig Toland, trustee. Application November 21, 1941. 4 claims.

2,373,489. HALFTONE PHOTOENGRAVING PROCESS AND SCREEN by the aid of which screen and process reproductions of artists' drawings are made with the shaded portions reproduced in conventional halftone photoengraving manner; but lines, type and highlights are free from screen pattern. Two kinds of light, or lighting of two ranges of wave length, are used and the plate employed is sensitive to both kinds of light. The screen is provided with rulings or a pattern composed of lines which are transparent to one kind of light while they are opaque to another kind of light. The drawing to be reproduced is either prepared or treated so that the shaded portions are made opaque to that kind of light for which the screen pattern is transparent. An ultra-violet absorbent substance, preferably of the fluorescent type, such as quinine bisulfate, is used. Invented by Walter S. Marx, Jr., Santa Barbara, Calif. Assigned to Printing Arts Research Laboratories, Inc., Santa Barbara, Calif. Application October 18, 1941. 7 claims.

Printing Inks and Related Chemicals:

2,371,899. CHLORINATED RUBBER EMULSIONS which may be combined with pigments and dyes to provide printing pastes for printing textiles and may be used with intaglio rolls. They may also be used in surface coating of paper, metal, glass, wood, cloth and leather. The emulsions are prepared from chlorinated rubber and a glycol ester of a rosin acid. The esters of rosin act as a plasticizer and as a resin in conjunction with the chlorinated rubber. Invented by Julius G. Little, Wilmington, Del. Assigned to Hercules Powder Company, Wilmington, Del. Application March 29, 1941. 7 claims.

2,372,370. PRINTING COMPOSITION particularly useful for cotton, which contains the ester salts of leuco vat dyestuffs in an optimal degree of dispersion suitable for printing. It may comprise the sodium salt of the sulfuric acid ester of leuco dibromoanthanthrone, the lactate of the trihydroxyethylether of triethanolamine and a thickening agent. Invented by Jacques Duport, Basel, Switzerland. Assigned to Durand & Huguenin S. A., Basel, Switzerland. Application April 21, 1942. 11 claims.

2,372,624. ALIPHATIC OXYAMINES are prepared to combine with fatty acids to form soaps which are valuable emulsifying agents in preparing printing compositions, textile treating agents, paper coatings, water-proofing compositions and are useful in the preparation of lakes and pigments, etc. They are good solvents for resins, casein, dyes, etc. The aliphatic oxyamines are prepared from a solution of an aliphatic oxynitrile containing an alkaline material by neutralizing the alkaline material and then hydrogenating the oxynitrile in the presence of a hydrogenation catalyst, and without removing the product of the neutralisation reaction. Invented by Erwin L. Carpenter, Old Greenwich, Conn. Assigned to American Cyanamid Co., New York, N. Y. Application October 4, 1941. 5 claims.

2,372,663. ANTHRAQUINONE COMPOUNDS which are useful in coloration of textiles by dying, printing, stenciling or other methods. They are made by condensing a suitable leuco anthraquinone with an amine. In one example leuco quinizarin, butanol, and beta-furfuryloxy-ethyl-amine are heated together under refluxing conditions until no further color change takes place. Reaction mixture is poured into water and oxidized with sodium perborate. The compound is 1,4-di-(mono-beta-furfuryloxyethylamino)-anthraquinone. Sulfonated oil and esters are used as dispersing agents. The dye may be used for dyeing wool, cellulose acetate, nylon, vinyon, etc. Invented by Joseph B. Dickey and James G. McNally, Rochester, N. Y. Assigned to Eastman Kodak Company, Rochester, N. Y. Application July 18, 1941. 9 claims.

2,372,756. WATER-IN-OIL EMULSIONS which are useful in coating and impregnating compositions such as printing inks for paper and textiles. Methyl cellulose is used as an emulsifying agent. The dispersed phase of the emulsion comprises water and the dispersion phase incorporates a fatty oil such as dehydrated castor oil. The emulsion is free of anionic and cationic emulsifying and wetting agents. Pigments are incorporated in the composition. Invented by Laszlo Auer, South Orange, and Arthur Francis Ray, Hawthorne, N. J. Assigned to Ridbo Laboratories, Inc., Paterson, N. J. Application December 16, 1942. 14 claims.

2,373,198. ACTIVATED ALUMINUM HYDROXIDE useful in printing mordant compositions for textiles because of its desirable plastic and other properties. It contains over one-third of a molecule of magnesium sulfate per two atoms of aluminum and two to three equivalents of an acid such as acetic or formic. Invented by Victor H. Roehrich, St. Paul, Minn. Unassigned. Application June 5, 1940. 5 claims.

2,373,261. NON-CORROSIVE SULPHUR DYESTUFF which does not require the usual reducing agents, such as sulphides or hydrosulphites, for printing various colors and designs in the usual way on fabrics of cellulose fibers. It is made by mixing a sulphur dyestuff press cake with an alkali and a straight chain non-substituted, aliphatic amine having an ethylene group to effect uniform solution of components, and then heating to accelerate solubilizing of dyestuff. Invented by Ewen D. Robinson and John C. Boesch, Jr., Mount Holly, N. C. Assigned to Southern Dyestuff Corporation. Application December 22, 1941. 10 claims.

2,373,407. AZO COMPOUNDS useful in dyeing fabrics such as organic derivatives of cellulose, wool, silk, nylon and "vinyon" and which can be applied by dyeing, printing, stencilling or other suitable means. One example of the preparation is: sulfuric acid is placed in a flask and heated, and sodium nitrite is added to form nitrosyl sulfuric acid. Solution is cooled and acetic acid and 2-amino-5-nitrobenzene-sulfonethylamide are added. Mixture is further processed, mixed with ice and water and precipitated. Allyl glyceryl-aniline is dissolved in acetic acid and the precipitate is added to this solution. Resulting mixture is stirred for twelve hours and water is added to precipitate the azo dye. Sulfonated oil, soaps and other dispersing agents are used in forming the printing paste, etc. Invented by James G. McNally and Joseph B. Dickey, Rochester, N. Y. Assigned to Eastman Kodak Co. Rochester, N. Y. Application June 26, 1943. 6 claims.

Printing Presses and Equipment:

2,371,693. CHAIN AND MOTION for a printing press. A horizontal endless driving medium is employed, with a link or similar member coupling one part of endless driver with bed to provide a constant feed of bed back and forth in the press. The improved construction provides a uniform speed of bed during printing stroke of the press. Two sprockets are spaced centrally and longitudinally of path

(*Continued on Page 28*)

Hammond PRECISION
....BEFORE AND AFTER

HAMMOND MERCURY TRIMOSAW

HAMMOND PRECISION in TrimOsaws, EasyKasters and Routers produced before the war continues to meet the exacting requirements of printers throughout this emergency.

HAMMOND PRECISION has benefited the production of war equipment.

HAMMOND PRECISION will benefit you after the war through new money-making equipment.

HAMMOND GLIDER TRIMOSAW

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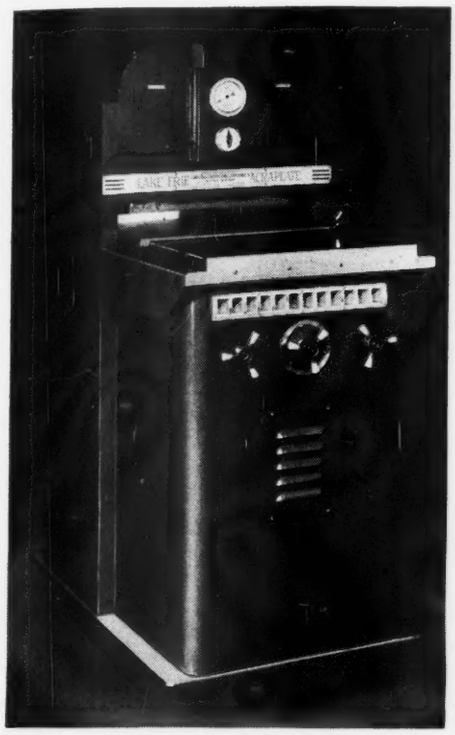
Hammond OF KALAMAZOO

INVESTIGATE the economies of rubber and plastic plates made on an ACRAPLATE PRESS



Many firms are taking advantage of the economies of printing with rubber or plastic plates. This modern plate-making method makes possible these many advantages:

- Elimination of standing forms and the necessity of tying up money in metal. Resinous mats can be stored indefinitely and in one-quarter the space of metal.
- Savings in make-ready and ink.
- Higher press speeds and less wear on the presses.
- Reduced chance of offset and no embossing.

A FEW ACRAPLATE ENGINEERING "FIRSTS"

1. Rugged Side Plate Design.
2. Large Diameter Rams.
3. Industrial Type Rotary Vane Hydraulic Pumps.
4. Positive Fingertip Control of Pressure.
5. Adjustable Gib Guides for Moving Platen.
6. Ball-Bearing Rolling Plate for Work.

It's not too early to write for complete details and specifications.

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LAKE ERIE
ENGINEERING CORP.
BUFFALO, N.Y. U.S.A.

"Counting Off" 30 DAYS

Hi, fellers!

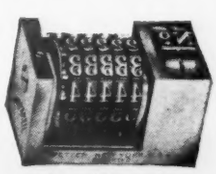
Well, here I am and the old shop sure looks good. I've got thirty days just to loaf, sleep, eat—and check up on what you've been doing while I was over there.

I learned a lot in this man's army—especially how to take care of myself, and my equipment. You know, Uncle Sam is a regular old "fuss-budget" when it comes to using oil and elbow grease.

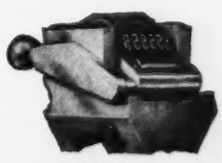
Coming back on one of those new transports I had a chance to visit the engine room. That's where you really see care. The Navy has a reputation for efficiency and every piece of machinery shows it—no oil or grease except where it is needed; and everything ship shape.

I'll be around again in a few days—so you'd better check those numbering machines and see that they have been cleaned and oiled. I'm as tough as my old top sergeant. You'll see.

The Kid



Wetter Nonpareil
One of many models



Wetter Rotary
One of many models

WETTER NUMBERING MACHINE CO.
ATLANTIC AVE. & LOGAN ST., BROOKLYN, N. Y.
Sold by all dealers and branches
AMERICAN TYPE FOUNDERS

7483

PATENTS

(Continued from Page 26)

of movement of bed and have axes perpendicular to bed. An endless chain engages the sprockets. A connecting member is movably coupled with bed and one part of chain whereby in each cycle of operation of chain, the bed is reciprocated back and forth in press frame. A mechanism for driving at least one sprocket and connecting member comprises a connecting rod pivoted in the central part of bed. Invented by William M. Kelly, Westfield, N. J. Unassigned. Application August 24, 1942. 6 claims.

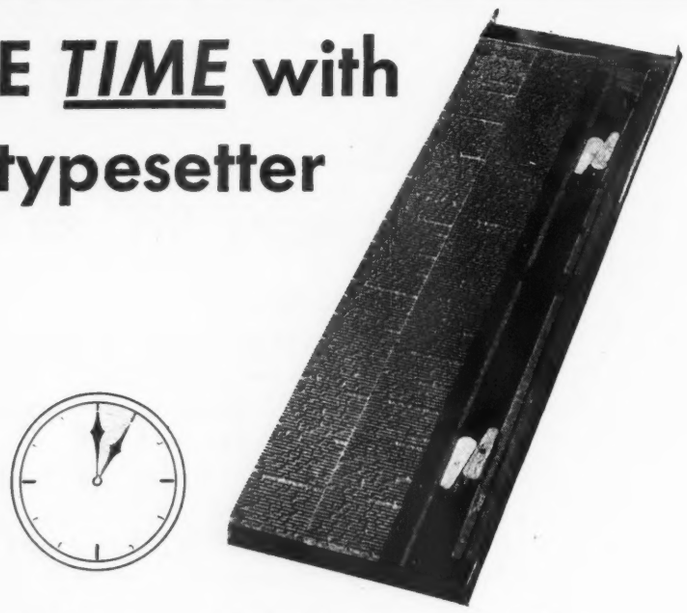
2,371,930. DEVICE FOR PRINTING FABRICS in which a stationary bed has a support mounted to travel longitudinally of it. Support bears the fabric to be printed and a silk template is superposed on the fabric. A track is located above and extends transversely of the stationary bed and travelling support. A color truck traverses track and a color sprayer carried by truck deposits liquid color on the area of the template located beneath it. Feed mechanism is connected with travelling support and is operable by the color truck as it reaches its opposite limits of movement, to advance the travelling support bearing fabric and template step by step, and to successively present uncolored areas of fabric and template to color sprayer. Invented by Bruno Sonnino, Milan, Italy. Vested in the Alien Property Custodian. Application March 27, 1941. 1 claim.

2,372,493. GAUGE FOR PRINTING PRESSES with which a tympan sheet once secured to the platen lasts indefinitely. A flexible band, such as spring steel, may be quickly secured to extend across the tympan sheet and gauges are slidably mounted on strip. For an adjustment laterally of the platen, it is only necessary to slide the gauges along the flexible strip, and, for a longitudinal adjustment it is only necessary to change the position of the flexible strip and then slide the gauges to the desired positions. Invented by Herman Heyman, Brooklyn, N. Y. Unassigned. Application January 20, 1944. 4 claims.

2,373,491. PRINTING PLATE ASSEMBLY MOUNT for the assembly of printing plates on flat beds of printing machines used mainly in the printing of books and magazines. The assembly mount is said to decrease the number of preparatory or standing hours of the machine, and thus increase the operating or producing period. The mount (for right hand and left hand plates) constitutes at least one unit section, and parallel movable racks incorporated in the section. The middle rack is movable between back marginal edges of right hand plates and the back marginal edges of left hand plates. The left hand and right hand racks are movable adjacent the fore-edges of respective plates. Gear pinions incorporated in the section are engageable by the racks and carry eccentric pins. Plate-edge-clamping dogs are each operatively connected to two eccentric pins. The middle rack engages sets of pinions for rotating eccentric pins to move the dogs bodily into clamping engagement with back marginal edges of both right hand and left hand plates. Invented by John Murray, Chobham, England. Unassigned. Application January 29, 1944. 11 claims.

For Patent Research in the U. S. Patent Office, or a prompt estimate on any type of search, address INVENTION, INC., Munsey Bldg., Washington, D.C.

SAVE *TIME* with Teletypesetter



Set 350 to 400 lines per hour with each composing machine

Users of the Teletypesetter system report that they save time in two important ways. The standard typewriter keyboard of the Teletypesetter perforator permits the operator to increase his speed by using the touch system, and the automatic operating unit keeps the composing machine working smoothly at its maximum speed.

Automatic locking which prevents slurring of the keys even at top speed, the easily-read character counter for rapid line justification, the end-of-line signal light, and the back space feature to catch errors *before* they are cast in type—all help users to turn out up to twice as much type per hour as they could by conventional methods.

The Teletypesetter system has been saving time, money and errors for publishers and job printers for 13 years. As soon as our war job is done, Teletypesetter will be ready to *save* for you. In the meantime, we shall be glad to accept your order for peacetime delivery. Write today for details.

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TELETYPESETTER
REG. U. S. PAT. OFFICE

GPI Acquires E. J. Kelly Co. and Michigan Research Laboratories

Acquisition of the E. J. Kelly Company and the Michigan Research Laboratories, Kalamazoo, Mich., by General Printing Ink Corporation, New York, has been announced by E. J. Kelly. There will be no change in the present local management, personnel or policy of the company.

Thomas J. Craig, formerly chief of the Protective Coatings Branch, Chemicals Bureau of the War Production Board in Washington, and more recently associated with the Geo. H. Morrill Co., Div. of General Printing Ink Corporation, will be resident manager of these two Kalamazoo firms.

The E. J. Kelly Company was organized 1929. Situated in Kalamazoo, the

(*Continued on Page 32*)

At left, Thomas J. Craig, resident manager of E. J. Kelly Co., Kalamazoo and Michigan Research Laboratories. At right, E. J. Kelly who made announcement of association of the two firms with General Printing Ink Corporation.

A SUGGESTION ON *Linotype and Intertype* MAINTENANCE:

Take a look at your Delivery Slide today. Are the Blocks, (Parts D1636 and D1637), aud the Head, (Part D1221), worn so that the Long Finger hits the back rail of the Assembling Elevator as it rises? Is it wearing a groove in the Back Jaw?

The Assembling Elevator and the Back Jaw together cost in the neighborhood of $53.00. Worth protecting, aren't they? Then consider the wear on the toes of your matrices from contact with a serrated back rail on the Assembling Elevator; and last,—and as most machinists would say,—but not least, think of the operator's jangled nerves every time the clamp slips.

If the answer to most of the questions above is "yes", then its time to replace the entire assembly with a

HARRINGTON DELIVERY SLIDE, COMPLETE
(PART NO. D-1641-A)

NOTE: This includes the Everlasing Adjustable Long Finger Block, non-slip Harrington Bar and Clamp, and Long Split Finger, to save front squirts.
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Whether you use Imperial Type metal and the Plus Plan . . . or "whoozits" metal, if you have questions or problems concerning type metal, we'll be glad to talk to you about them. For instance, if you question the analytical content of your metal in relation to its use we'll gladly tell you why that metal is alloyed with the definite amounts of the ingredients that it contains. We'll analyze your metal and give you a report. If you are dissatisfied with the appearance of your printing or if your men need instructions in handling or caring for metal, call on us.

Imperial services are backed by 33 years experience in manufacturing and servicing type metal and are available to all type metal users. We welcome your inquiry.

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AND SERVICE

Employers, production and mechanical executives may insert notices in this department. Items may pertain to the following subjects: "Executive Wanted," "Association or Partnership Wanted," or "Position Wanted," readers referring to subjects of a personal nature such as obtaining information about addresses of executives, supplying copies of technical articles and magazines, patents for sale or requests for contacts for developing and/or financing of inventions. Any reasonable request by an executive on a subject other than those listed will be granted cheerfully.

Notices may be printed under the following regulations: First insertion (maximum six lines) is free of charge. All subsequent insertions of the same item subject to a charge of 75c per line in advance.

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MECHANICAL ENGINEER — Wanted to develop specialty paper converting machinery and supervise mechanical equipment in printing plant now occupied with war essential work. Must have design experience but not necessarily in this field. Permanent position, good advancement opportunity. Salary open. Location central New York. Please give details in first letter. All correspondence strictly confidential. Reply Box No. 226.

NEWSPAPER PHOTO-ENGRAVER — Practical. Experienced in all branches; available for superintendent or foreman situation anywhere in U. S.; union member; day or night position acceptable; 20 years experience large daily papers. Reply Box 225.

NEWSPAPER PRESSROOM SUPERINTENDENT—Wants situation. Competent to take charge of pressroom; any make of press; 20 years experience; married; location no drawback. At present employed but change is imperative. Reply Box 228.

INVENTOR—Holding patent on photographic typesetting method, and having other patent applications in preparation on related methods, will enter into arrangement with responsible organization interested in this field which would permit full-time development of these inventions. Now managing own typesetting business. Reply Box 227.

Double Security

Double security has been established for employees of the Aetna Photo Engraving Co., Inc., of New York, N. Y., through the corporation's adoption of a group insurance program which provides its personnel with life insurance and sickness and accident benefits. The president of the concern is O. Machler. The group plan is being underwritten by the Metropolitan Life Insurance Co. on a basis whereby the entire cost is being borne by the employer. Under the provisions of the plan, general employees receive $1000 life insurance and in case of non-occupational sickness or injury will be paid $10.50 a week.

Joseph F. Thompson, formerly research chemist with the Dennison Manufacturing Co., Framingham, Mass., has joined the staff of Battelle Institute, Columbus, O., where he is engaged as a research engineer in its Graphic Arts Research Division. Thompson is a graduate of the Franklin Union Institute and has studied additionally at Northeastern University, Boston. He is a member of the Technical Association of the Pulp and Paper Industry.

Carton Sealing Chart

In the interest of conservation of paper and materials as well as shipping efficiency and the safety of contents, the Mid-States Gummed Paper Company, has published a wall chart, which shows how to properly seal cartons with Green Core Sealing Tape with no waste of tape or sacrifice of "sealing line protection".

This wall chart is especially designed for use in shipping rooms. It graphically shows in eight steps how the sealing lines of cartons should be protected against rough handling and other shipping hazards with maximum safety to carton and contents at a minimum expenditure of materials. The wall chart is entitled "Green Core Sealing Tape Chart".

Copies of the chart may be had by writing the Mid-States Gummed Paper Company direct or in care of *Printing Equipment Engineer*.

Western Acquires Wolff

E. H. WADEWITZ, President, Western Printing & Lithographing Company, Racine, Wis., announces that the company has acquired the Wolff Printing Company, St. Louis, Mo. Operations carried on by Wolff Printing Company in the past will continue uninterruptedly with no change in the policy, personnel or management of the company. John M. Wolff, Jr., President, Wolff Printing Company will become a vice president of the Western Printing & Lithographing Company and continue as general manager of the St. Louis business, which hereafter will be known as Wolff Printing Company, Southwestern Div., Western Printing & Lithographing Company. Plans for expanding the operation of the company to handle the additional business resulting from its inclusion as the Southwestern Division of the Racine company are substantially completed.

Organizes Pacific Coast Division

General Printing Ink Corporation announces the formation of a Pacific Coast Division with headquarters in San Francisco. This move will coordinate the activities formerly handled individually by three divisions of the Corporation: The Fuchs & Lang Manufacturing Co., Geo. H. Morrill Co., and Sigmund Ullman Company.

Centralization of service and equipment will be provided without change in the policies of these three divisions. There will be no change in the personnel. The Pacific Coast Division, with headquarters in San Francisco, will be directed by William (Bill) J. Egan, general manager, who has been associated with the Geo. H. Morrill Company and General Printing Ink Corporation for more than thirty years.

The manufacturing, research and technical facilities will be concentrated in San Francisco and Los Angeles, supplemented by branches and service stations in principal cities on the Coast.

The new Los Angeles plant and service station are in the recently acquired site at 2458 Hunter Street, located in the manufacturing district. All the district sales, office and technical personnel, as well as the basic manufacturing equipment and storage facilities for raw materials and products are located there.

In addition to the services of Mr. Egan, the Pacific Coast Division will have on its staff: Guy Sensiba, Roger Westling and Walter Lawrence, who headed the Los Angeles branches of the Sigmund Ullman Co., Geo. H. Morrill Co., and Fuchs & Lang Mfg. Co. Divisions respectively. They will continue to handle the same specialized products.

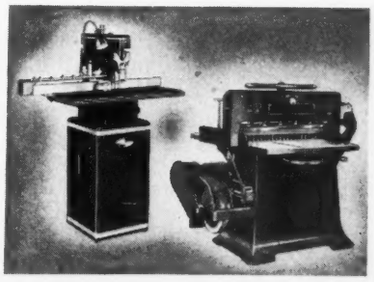
View of new Los Angeles Office and Plant, Pacific Coast Division, General Printing Ink Corporation, at 2458 Hunter Street.

WITH AN EYE TO THE
-FUTURE

★★WAR PRODUCTION has taught ways and means of reducing costs, stepping up production and at the same time improving the quality of products.

The Challenge Machinery Company as in the past will continue to build this new knowledge into the products of the POST-WAR ERA. Thus the ***Graphic Arts Industry*** will be rewarded for the hardships it has endured during these war years—new horizons will be opened to all.

Are you ready to capitalize on these **POST-WAR OPPORTUNITIES?**



● Prepare now by writing us fully as to your needs and requirements. Then, when priorities are lifted we can start building machines for you—without delay—keeping our force intact and putting our boys now in the service back to work as they are released. That will be PAINLESS RECONVERSION. ***You can help make it possible and at the same time help yourself—that's the American way!*** 513

LET'S FINISH THE JOB --- BUY MORE WAR BONDS!

THE CHALLENGE MACHINERY COMPANY
"Over Fifty Years in the Service of the Graphic Arts"
GRAND HAVEN — MICHIGAN

Booth's Zink Cut Cement prices in the United States: 75c per tube; $6.00 per dozen tubes; $5.00 per dozen tubes in gross lots.

Let Booth Help You

Mechanical and production executives who are not familiar with Booth's Zink Cut Cement may have been having trouble with lost, misplaced or out-of-position cuts. These minor irritations may be eliminated by using this cement. Cuts will be placed on bases exactly as indicated in the advertiser's layout.

THEY ARE DEPENDABLE

Machinists who have had experience with too-large-diameter or out-of-round rubber rolls for line-composing machine keyboard shafts will welcome the information that Booth's Black Rubber Rolls (still pre-war quality) may be secured. They are of the same diameter throughout their length and are concentric when applied properly to the roll shaft. $1.45 per pair; $7.75 per dozen rolls.

E. A. BOOTH
RUBBER COMPANY
364 ROCKEFELLER BUILDING · CLEVELAND, OHIO

Paul J. Thoma, who with D. R. Erickson developed Hydry, which dries instantly upon the impingement of steam.

firm services the packaging industry in the Middle West.

The E. J. Kelly Company founded the Michigan Research Laboratories in 1937. One of its most important contributions to the industry is a new type of printing ink known as Hydry.

Originated by Paul J. Thoma and D. R. Erickson, Hydry was created principally to prevent offset immediately after printing and embodied a principle never before used in ink formulation. The fact that the ink was odorless and dried instantly by the impingement of steam on freshly printed sheets, resulted in its wide acceptance in the packaging industry, especially by manufacturers and printers of bread wrappers, paper milk bottles, bags, corrugated boxes and food cartons.

It has been announced that Paul J. Thoma is to serve as vice president of both the E. J. Kelly Co. and Michigan Research Laboratories, in charge of production and development. He is an engineering graduate of the University of Illinois and a member of the Technical Printing Ink Sub-Committee of the Protective and Technical Coatings Industry Advisory Committee, War Production Board, Washington.

The research and technical facilities of the Kalamazoo firms will be supplemented by the laboratories of the various divisions of General Printing Ink Corporation to further develop and expand the application of Hydry. The E. J. Kelly Company and Michigan Research Laboratories will retain their identity and will function as a wholly-owned subsidiary of the General Printing Ink Corporation.

SMALL PLANTS CAN *Profitably*

USE *Rouse* BAND SAWS

The No. 2 Rouse Band Saw will cut seven inches of linotype slugs to variable measures in 18 seconds. Slug lengths are automatically selected, and feed is mechanical. Operation is the same as the No. 1 Rouse Band Saw.

The Rouse Band Saw eliminates tedious methods of cutting a few slugs at a time for each measure necessary where run-a-rounds and changes of slug lengths are frequent.

The Rouse Band Saw is a production machine and essential in any plant operating linotypes, where speed is important or competitive prices must be met.

You can order now for preferred delivery when Rouse Band Saws are available. If you do not have full information, write today.

H. B. ROUSE & COMPANY

2214 NORTH WAYNE AVENUE, CHICAGO 14, ILLINOIS

Endowment Fund Plan Is Received Enthusiastically

THE recently announced plan to seek $500,000 in endowment funds for the Department of Printing at Carnegie Institute of Technology, Pittsburgh, Pa., is being received enthusiastically by the printing industry. In addition to contributions by eleven firms reported in January, gifts to the scholarship and research funds have been received from Guide Printing Co., New York, N. Y.; Kable Brothers Co., Mount Morris, Ill.; Trade Bindery, New York, N. Y.; and Judd & Detweiler, Washington, D. C.

The contribution from Judd & Detweiler was $5000 given for the purpose of establishing the George H. Judd Printing Scholarship Fund. This fund will be administered to provide scholarship aid for able students who would otherwise be denied the opportunity of college training in printing.

Six alumni who are members of the armed services have recently made contributions: Cpl. Walter W. Haller, Capt. Jerome E. Kappel, Pfc. Irving Norgren, Lt. Milton J. Pinsky, Pvt. Jerome N. Schiff, and Lt. A. L. Steinberg. Five alumni associated with the following printing firms have made individual contributions: John H. Hartman, W. B. Saunders Co., Philadelphia; E. A. Normandeau, Smith Printing Co., Williamsport, Pa.; Emil G. Stanley, Traffic Service Corporation, Chicago; Penn R. Watson, Jr., William J. Keller, Inc., Buffalo; and J. Paul Whitehead, Heminway Corp., Waterbury, Conn.

All contributions will be matched two for one by the Carnegie Corporation of New York in July, 1946. Contributions should be made payable to Carnegie Institute of Technology and should be forwarded to Glen U. Cleeton, Chairman, Printing Endowment Fund, Carnegie Institute of Technology, Pittsburgh 13, Pa. The donor should indicate whether the contribution is for research, instruction, or student scholarships.

"MATS?
are we running short?"

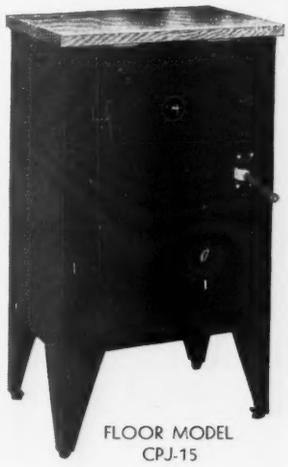
"No and we are not going to," answers the stereo foreman. "But we have been cutting into the thirty-day reserve that Certified asks us to keep ahead. . . . It allows shipments to take their turn in the war traffic and saves uncertainty at both ends—Just good sense, I call it."

CERTIFIED DRY MAT CORPORATION
9 Rockefeller Plaza
Dept. M,
New York 20, N. Y.
For dependable stereotyping rely on Certified Mats

Certified DRY MATS

SYNTRON
"VIBRATING"
PAPER JOGGERS

TABLE MODEL PJ-15


FLOOR MODEL
CPJ-15

Will **SAVE** You **TIME, MONEY** and **LABOR** on those "close-figured" jobs, by eliminating unnecessary effort and speeding up the work processes.

Available in seven different types and styles — table, floor, tilting and two-way.

WRITE FOR FOLDER

SYNTRON CO.
577 LEXINGTON AVE.
HOMER CITY, PA.

New Feature introduced in annual page sizes and paper roll widths report

ROTARY WEB PRESS CUTOFFS
(Columns run around the cylinder)

Plate Cylinder Diameter (Inches)	Calculated Cut-Offs Length (Inches)	Nominal Cut-Off Length (Inches)
7¼	22.776	22¾
13.684	21.495	21½
13 11/16	21.500	21½
13¾	21.598	21⅝
14	21.991	22
14½	22.776	22¾
14¾	23.169	23 3/16
15	23.562	23 9/16
15 3/10	24.033	24
16⅛	25.329	25 5/16
16¾	26.311	26 5/16

THE Report on *Page Sizes and Paper Roll Widths* published annually under the supervision of Manager W. E. Wines, by the ANPA Mechanical Department contains a new feature this year. Two pages of the report are devoted to newspaper cutoff lengths. A total of 620 newspapers participated in this year's survey.

In the discussion related to cutoff lengths, a tabulation of plate cylinder diameters and the calculated and nominal cutoff lengths in inches is given. "Careful measurement," states the report, "of the actual cutoff lengths of the newspapers submitted in connection with the survey disclosed considerable variation between the actual cutoff and the calculated or nominal cutoff. In the majority of instances, the actual cutoff was somewhat longer than the calculated and in some instances the actual cutoff was found to be less than the calculated. These variations are no doubt the result of conditions in the press—such as blanket thickness, amount of impression, web tension, and other factors."

DISTRIBUTION OF CUT-OFFS

Nominal Cut-Off Length (Inches)	Number of Papers
21½	64
22	2
22½	19
22¾	382
23 3/16	2
23 9/16	143
24	1
25 5/16	2
Total	615

With respect to page makeups, it is stated that there is no trend toward a "standard" newspaper page makeup. Of the 620 papers listed, 579 or 93.3 per cent use three page makeups, while the remaining 41 papers use 19 page makeups.

With respect to the number of columns, column widths and column rule thickness, reporting papers to the number of 615 are divided as follows: 83 papers are made up with 8 col., 12 pica col. width with 3 pt. col. rule; 277 papers are made up with 8 col., 12 pica col. width with 4 pt. col. rule, and 215 papers are made up with 8 col., 12 pica col., 12 pica col. with 6 pt. col. rule.

According to the report, the popularity of the 3 pt. column rule continues to increase—91 newspapers now using 3 pt. column rule as against 45 in the report a year ago.

Rations For Electrons

Fluorescent lamps last longer if you let them burn continuously. The reason, explains the Westinghouse Lamp Division, is that each time one of these tubes is turned on electrons "nibble" at the tips of the electrodes until the light-producing arc is struck. Frequency of starts, on the other hand, does not affect an incandescent lamp's longevity since it fails because the tungsten filament evaporates at incandescence until it finally melts.

WPB

(Continued from Page 22)

restrictions on small users and those with low inventories, and thus will balance the over-all demand with the paper supply available to the industry. Similar restrictions on deliveries have been placed on book publishers and commercial printers, operating under Limitation Orders L-245 and L-241, respectively.

The delivery reduction plan was adopted after a survey indicated that inventories in the hands of magazine publishers are apparently sufficient to supplement reduced receipts in the second quarter.

WPB officials pointed out, however, that a further cut in consumption quotas will result unless the industry suceeds in meeting the difficult problems that will be caused by local dislocations.

It is also provided that all magazine publishers must make a new one-time certification to their paper suppliers Several other changes in the order were made for clarification.

Four Firms Charged with Paper Over-Use

FOUR firms — two newspaper publishers and two commercial printers —have been charged by the War Production Board with paper over-uses totaling 1045 T. in 1943 and 1944, the Compliance Division of WPB reported on April 18. The four firms placed under consent orders restraining their use of print paper during 1945 are the Detroit *Times*; the Sheboygan (Wis.) *Press*; Cerre, Inc., commercial printers, Detroit, and Rad-Mar Press, Inc., commercial printers, Toledo, O.

The Detroit *Times* is charged with having used 101.7 T. of excess paper; the consent order action provides for use of 33.9 T. less paper during each remaining quarter of 1945.

The Sheboygan *Press* is charged with having used 62 T. excess paper; the consent order provides for reduction of paper usage in 1945 by an amount equivalent to 10 T., 18 T., 12 T. and 22 T. in respective quarters.

Cerre, Inc., is charged with having used 862.5 T. excess paper; consent order provides for use of 450 T. less paper during 2nd quarter of 1945, 298 T. less during 3rd quarter, 116.5 T. less during the 4th quarter.

Rad-Mar Press, Inc., is charged with use of 18.518 T. excess paper; consent order provides use of 18.518 T. less paper during the 2nd quarter of 1945.

Only For Installed Refrigeration Equipment

THE recent release of "froon", under amendment of Order M-28, was for the sole purpose of permitting the operation of existing installed refrigeration and air conditioning systems, the War Production Board said on April 17. Restrictions on production and distribution of air conditioning equipment have not been changed. WPB said that since the announcement of the release of "froon" an erroneous impression had arisen in some quarters that now air conditioning equipment also had been released and could be obtained without restriction. This, WPB emphasized, is entirely incorrect.

Withdraw Sale of Magazines

ALL copies of two comic magazines, *Pop Pop* and *Twinkle*, which had been placed on sale in New York, N. Y., have been called in by the distributor, Gotham News Company, Inc., it was announced recently by the War Production Board.

Pop Pop is published by the R. B. Leffingwell Co., and *Twinkle* is published by the Spotlight Co., both of Chicago. On the basis of evidence submitted by these companies, WPB said, neither has a paper consumption quota for the publication of magazines, as it appears neither published magazines in 1942, the base period under L-244, the applicable Limitation Order. The number of copies printed far exceeds the "small business" exemption in the order, WPB said.

The distributor agreed to withdraw all copies from sale immediately and to order newsstands and other retail outlets to return all unsold copies, WPB said.

Now, more than ever, Mohr saw owners appreciate the important savings in time, made possible by this automatic slug saw. Slugs are cut to any desired length as they are ejected from the linecasting machine. 100% automatic operation. Accurate and speedy.

Write for information about the Mohr Measure Control Unit—the quick-changing feature which makes possible instant and precise adjustment of slug length.

MOHR LINO-SAW COMPANY
126 N. Union Avenue Chicago 6, Ill.

Untie Your Printers!

USE THE RIEHLOCK GALLEY LOCKS
•
SAVE 90% OF TIE-UP TIME
•
PERFECT PROOFS
•
SAFE STORAGE
•
MADE IN ALL SIZES
•
GUARANTEED FOREVER

Width of Galley	Price per Hundred	Width of Galley	Price per Hundred
3½ inch	$ 8.00	10 inch	$12.00
26½ pica	10.00	10½ inch	12.00
6¼ inch	10.00	12 inch	15.00
8½ inch	12.00	17¼ inch	23.00
8¾ inch	12.00	19½ inch	26.00

Size	GALLEY SIDE LOCK	Price per Hundred
8 inch		$8.00

Prices slightly higher in smaller quantities.

PRICES ON OTHER SIZES OR INFORMATION UPON REQUEST.

RIEHL GALLEY LOCK CO., INC.
1312 ONTARIO ST., CLEVELAND 13, OHIO

A User of

CUSHMAN (OFFSET) MOTORS

writes:

"We have your Motors in use on our two Intertypes. On the first one, purchased twenty years ago, *we have renewed pinions only twice.* The second Motor is only five years old, and the original pinion is still running."

This is an example of how smoothly Cushman Motors operate, especially when the proper mesh of Pinion with Driving Gear Pulley is obtained from the beginning.

Our Instruction Book explains the correct technique for making this adjustment quickly. It is yours for the asking.

Cushman Motor Division

LINOTYPE PARTS COMPANY

WEATHERLY, PENNA.

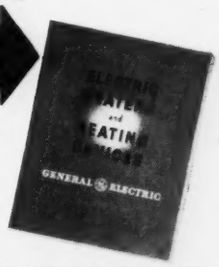
THE SOLUTION FOR A-THOUSAND-AND-ONE HEATING PROBLEMS—

G-E CALROD HEATERS

(one of the popular G-E midget heaters)*

The most widely used midget heaters on the market —use them for contact heating of metal surfaces, direct immersion in oil, alkaline baths, soft metals such as lead and solder. Cast them into iron and aluminum, or use them for industrial ovens, hot plates, etc. Extremely durable and efficient. Can be bent to almost any shape. Wide choice of sheath materials. For temperatures up to 1200 F, and a special, high-heat type for up to 1500 F. PRICES FROM $3.30.

SEND FOR GED-650



This catalog will give you the complete story on Calrod heaters and other G-E midget heaters; also information to help you select quickly the midget heater or heating device best suited to your needs.

**OTHER G-E HEATERS:* FIN CALROD HEATERS. CALROD IMMERSION HEATERS. CARTRIDGE HEATERS. STRIP HEATERS. IMMERSION HEATERS. CONVECTION HEATERS. HEATING CABLE.

GENERAL ELECTRIC

Sharply Curtail Use of Lead

BECAUSE the lead supply has become increasingly critical, permissive uses for the metal have been curtailed in amended Order M-38 to include only end products that have been investigated thoroughly as to their essentiality to the military program and civilian economy, the War Production Board said early in April. The amended order, effective April 1, 1945, lists 64 permissive uses for lead and eliminates the previous Lists A, B and C, which covered totally restricted uses and quota percentage restrictions.

Greeting Cards and Illustrated Postcards Order L-289 Amended

THE paper and paperboard inventory ceilings of printers and publishers of greeting and illustrated post cards in the second quarter of 1945 has been fixed at 50 days' supply, WPB reported on April 16. Restrictions as to usage were not further tightened but remain at 60 per cent of the total paper tonnage used in the base period of 1942, and 50 per cent of the paperboard used in packaging production.

Effective today, an amendment to Order L-289, which controls the manufacture and publication of greeting and illustrated post cards, and parts thereof, places the 50-day limitation on the total tonnage of paper, paperboard and boxes for packaging these products. Only 15 per cent of a manufacturer's quarterly quota may be used if carried over, into a succeeding quarter under the new amendment, WPB pointed out.

Notwithstanding delivery and inventory restrictions, a publisher may accept separate items of paper and paperboard in unit quantities by weight, if he accepted similar deliveries in his base period. This pertains when certain types of paper or paperboard were accepted in carload, truckload, 10,000- or 5000-lb. lots or in a unit of four cases.

Order L-289 places new compliance restrictions on paper suppliers, printers, binders, distributors, wholesalers and others, prohibiting them from selling, buying or processing paper materials or cards made in violation of the order. This restriction is similar to those placed on other printers and publishers under their control order.

In cases of appeals to the WPB Appeals Board under L-289, Form 3820, in accordance with Priority Regulation 15, is no longer required.

Required to Increase Monthly Production

PRODUCERS of paperboard early in April were required to increase their monthly reserve production to 50% of their average monthly output as reported to the War Production Board during the last three quarters, WPB announced. This was effected by issuance of Direction 1 to Order M-378, dated March 31, and is effective in the month of April and thereafter. Formerly the reserve production, designed to meet military and essential requirements for paperboard, was 40% of a producer's average monthly production.

Governmental Commercial Printing and Duplicating Order L-340 Amended

PAPER inventory ceilings for both governmental commercial printing and printers and publishers of greetings and illustrated post cards are fixed at a 50 days' supply, by amendments to Limitation Orders L-340 and L-289, the War Production Board announced on April 16.

An amendment to the Governmental Commercial Printing and Duplicating Order L-340 places a limitation on the acceptance of paper for commercial printing ordered by governmental units, by reducing maximum inventory ceilings. Under the amendment all governmental agencies, including Federal, State, county, municipal or local political units, must reduce paper inventories to the new level June 30, 1945, to relieve the pressure on papermills and suppliers in the second quarter. No change in paper consumption is made, however. The limitation is still 75 per cent of the base tonnage used in 1942, officials of the Printing and Publishing Division explained.

Order L-340 does not affect government units that require less than 1 T. a year or whose commercial printing costs less than $1000 per annum, it was pointed out. Federal governmental agencies such as the Army, Navy, War

Shipping Administration and the United States Maritime Commission are exempt from restrictions of Order L-340 but are subject to all conservation orders of the Director of the Budget.

The order makes it clear that governmental inventory means the aggregate weight of all kinds, grades, sizes and basic weights of paper available for immediate or possible future use. The amendment is similar to recent amendments to the other printing and publishing orders L-241, commercial printing; L-244, magazines and periodicals, and L-245, books and booklets.

May Insist Upon Statement

PAPER merchants and all purchasers of book, magazine, pamphlet and commercial printing cover papers are required to furnish their manufacturers or suppliers with a statement that the cover paper purchased will be sold and used only for the production of covers, the War Production Board Paper Division re-emphasized on April 23.

Answering requests for an explanation of Paragraph (j) (3) of Schedules I, II and III and the Appendix of Schedule XIV to the standardization paper order, L-120, as amended April 3, 1945, Paper Division officials explained the statement "any buyer who resells cover paper may require his customer to give him a similar statement", as follows: It is within the power of the buyer who resells to exercise the option of the word "may", and insist on the compliance statement if he desires to do so. However, if such a buyer does not elect to require the statement from his customer, he assumes the responsibility for an improper use of the cover paper, having already furnished his manufacturer or supplier a compliance statement with his orders.

Book Order L-245 Amended

CONTINUING shortage of printing paper available to the book publishing industry during the second quarter of 1945 will be met by a 15% cut in printing paper deliveries to book publishers during that period, but no curtailment in use within consumption quotas is required, the War Production Board said early in April.

An amendment to Limitation Order L-245, issued on April 3, provides that all book publishers who use more than 50 T. of paper per year must reduce their paper receipts in the second quarter of 1945 of 85% of their acceptance of paper in the second quarter of 1944 or 21¼% of their 1944 consumption, whichever is greater.

Small publishers are exempted from the full impact of the delivery restrictions in order that they may be able to continue operating at their permitted rate of consumption. The small publishers thus exempted account for about five per cent of the industry's total consumption of paper. The amended order also provides that no publisher may have an inventory on and after June 30 exceeding his inventory on March 31, 1945.

The delivery-cut plan was adopted after a survey indicated that inventories in the hands of the book publishing industry are apparently sufficient to supplement reduced receipts in the second quarter. However, WPB officials pointed out that a further cut in consumption quotas will result unless the industry succeed in meeting the difficult problems that will be caused by inevitable dislocation.

Today's amendment also provides that all book publishers must make a new one-time certification to their paper suppliers. Other changes in the order are for clarification.

Miscellaneous publications not classifiable as books, magazines or newspaper under the respective orders are now included in Schedule 11 of the Commercial Printing Order, L-241, and are subject to quota restrictions if the issuer receives a consideration either from the sale of copies or the inclusion of advertising or other material therein.

Base Weights Lowered in Printing and Writing Papers

ELIMINATION or lowering of certain basis weights in the manufacture of printing and writing papers, as directed by the War Production Board, will result in the use of lighter weight papers and save approximately 7500 T. of paper a quarter, WPB announced in April.

Several schedules of WPB's Simplification and Standardization of Paper and Paperboard Order L-120 were amended, and Direction 1, placing further restrictions on the manufacture of book, envelope and certain fine papers, was issued on April 3.

Why Gamble

WITH LOADED DICE!

PLAY SAFE WITH SAFETY

JUSTRITE

Justrite Safety Cans and Oily Waste Cans give maximum protection against the hazards of fire at a minimum cost. The Safety Cans, for handling and storing flammable liquids, are easy to handle . . . convenient to pour and fill. Justrite Safety Cans and Oily Waste Cans are approved for safety by Underwriters' Laboratories, Inc., and the Factory Mutual Fire Insurance Companies and so marked.

OILY WASTE CAN

The safe container for dangerous, oily waste. Furnished with or without foot lever as desired. Top closes automatically. Body made of No. 24 gauge galvanized sheet steel . . . cover No. 22 gauge. Legs and handle are ⅛" band iron. Can is double seamed and soldered. Efficient, economical and safe.

Ask your supplier about Justrite Safety Products.

JUSTRITE MANUFACTURING COMPANY

2063 N. Southport Ave., Dept. J-2, Chicago 14, Ill.

BEVERIDGE

DRY MATS

are Dependable

SAMPLES TO YOUR SPECIFICATIONS
GLADLY SENT GRATIS UPON REQUEST

New Products Division

THE BEVERIDGE PAPER COMPANY

INDIANAPOLIS 4, INDIANA

60 YEARS OF PAPER MAKING SKILL

LASTING
IMPRESSIONS
because...
The stayback of WOOD DRY MATS makes them favorites among stereotypers throughout the country.
WOOD DRY MATS
WOOD FLONG CORPORATION
HOOSICK FALLS, N. Y.
NEW YORK CITY OFFICE:
551 FIFTH AVENUE, NEW YORK 17, N. Y.

RECOMMENDED

Doing properly every job he is given to do is the best testimonial anyone can have. For 141 years this has been the principle behind the manufacture of Johnson Inks.

CHARLES ENEU Johnson AND COMPANY
GOOD INKS SINCE 1804

Philadelphia • New York • Chicago • Boston • St. Louis • Cleveland
Detroit • Baltimore • Kansas City • Pittsburgh • Atlanta • Dallas

Amendments to Schedules I, II and III, covering book, magazine, pamphlet, and commercial printing papers and fine writing papers, now require paper merchants or anyone buying cover papers to give their suppliers a statement that such papers will be sold and used only for the production of covers. A similar statement has been required on orders for cover papers in certain cases, but now it is required in all cases involving cover papers.

COMMERCIAL PRINTING PAPERS*—Changes in the basis weights of commercial printing papers covered in Schedule I include the reduction of the weight of Uncoated English (Machine) Finish Book papers for sheet music from 80 to 70 lbs. per ream; Uncoated Book papers, Supercalendered for sheet music, from 80 to 70 lbs.; Coated One Side Book papers for sheet music, from 85 to 80 lbs.; and also the elimination of 25 x 38—60-lb. Uncoated Offset for multicolor work. In the Plain Coated Cover papers category, the maximum weight of 60 lbs. was eliminated, leaving the weight 50 lbs., and maximum weight was reduced from 65 to 60 lbs. for the various types of soil, grease and moisture-proof cover papers. Poster papers were reduced in basis weight from 55 to 50 lbs Coated Post Card Bristol was reduced from a thickness of 0.011 to 0.009 in.

BOOK PAPERS — Under Schedule II, covering book papers, the standard basis weight of Uncoated Offset Book papers was fixed at 50 lbs., and the basis weight of 60 lbs. for multicolor printing was eliminated. Basis weights of Plain Coated Cover papers were changed from 65 and 60 lbs., to 60 and 50 lbs. respectively, contingent on their use.

FINE WRITING PAPERS—Schedule III changes affecting the fine writing papers included the following: Rag Content Wedding papers, eliminates the substance weight for paper 22½ in. by 28½ in. in dimensions of 120 lbs.; Rag Content Index, eliminates the substance weight 25½ x 30½—140; Base Stock for Blue Print and Direct Line Paper, the standard maximum weight is fixed at 17 lbs., and the 20½ lbs. has been eliminated; Rag Content Antique (Machine Finish) and Chemical Woodpulp Antique (Machine Finish Specialty Cover Papers, the 20 x 26—65 lb. has been eliminated; Chemical Woodpulp Vellum and Wedding Papers eliminates substance weight 22½ x 28½—120 lb.; Chemical Wood pulp Index Bristols are limited to 22½ x 28½—100 lb. maximum; and the maximum weight of Text Papers is fixed at 25 x 38—50 lb.

ENVELOPE PAPERS—Schedule V covering Envelope Papers was amended to fix the maximum standard basis weight at 20 lbs., eliminating the 24-lb. substance.

MULTI-COLOR PRINTING — An amendment to Schedule XIV, covering papers for use in the printing of newspapers and magazines, eliminates the basis weight of 25 x 38—60 lb. for Uncoated Offset Book paper for multicolor printing. The use of 25 x 38—70-lb. paper is permitted when a certificate is furnished by the customer stating that said paper is purchased for use as a cover paper.

PROHIBITION OF MANUFACTURE OF CERTAIN PAPERS, BUT PERMISSION GRANTED FOR DELIVERY OF CERTAIN PAPERS PRODUCED PRIOR TO APRIL 1—Direction 1 to the order under Schedules V, VII, VIII, and IX prohibits the manufacture of certain papers except in the basis weights specified in Direction 1, but permits delivery of such paper produced prior to April 1, 1945. Wedding papers, including Rag Content and Chemical Wood, are fixed at 17 x 22—20 lb. and 22½ x 28½—100 lb. maximum weights. It also fixes maximum basis weights for Rag Content and Chemical Wood Writing papers, except for domestic and foreign papers, at 20 lbs. The maximum weight for Plain Coated Cover paper is fixed at 20 x 26—50 lbs.

Bases for Appeal Revised

BASES on which appeals of newspaper publishers for additional print paper will be considered by the War Production Board Appeals Board have been revised by the issuance of an amendment to Supplement 1 to the newspaper Limitation Order L-240, WPB's Printing and Publishing Division announced early in April.

Changes in the amended supplement

Don't be a Saw Tinkerer...

Don't waste time on repairing worn-out saws. Their inaccuracies result in production problems long removed from sawing operation. They are sure trouble-makers.

Most saws in use now are War Casualties. They should be replaced with new high-efficiency No. 3-A C&G Saw Trimmers. If you do not have the full facts on C&G equipment, you should send for catalog and order promptly for the earliest possible delivery.

MILWAUKEE SAW TRIMMER CORP.
610 EAST CLYBOURN STREET, MILWAUKEE 2, WISCONSIN

were explained by WPB officials as follows:

Formerly, the upplement provided that the rate of population increase "shal be determined on the basis of the best available evidence." Since experience has indicated that the best available evidence consists of Census Bureau figures and the next best of public utility company records of customers for domestic electric service, the amendment requires that these two bases be used.

In determining a newspaper's circulation growth in congested areas, the rate of increased circulation is determined by comparing the first quarter of 1945 with the average for the year 1942. Previously, the first two quarters of 1944 were compared with the average for 1942. This change requires newspapers that have been granted tonnage because of population increa e to prove that they have used that tonnage for circulation service, in ord r to be eligible for grants in succeeding quarters.

Under the original standards of Supplement 1, this adjustment factor was applied to the newspaper's total adjusted base tonnage. It is now provided that this factor shall apply only to that portion of the newspaper's adjusted base tonnage which corresponds to the ratio of its trading area net paid circulation to its total net paid circulation in the last two quarters of 1944.

Previously print paper appeal grants covering extraordinary population increase accompanied by a circulation increase were in the form of additions to a newspaper's adjusted base tonnage. This meant that the grant was subject to the sliding scale of percentage cuts in consumption. Such grants may now be issued in the form of net additions to the newspaper's consumption quota so that the additional tonnage will be exempt from the percentage curtailments.

OPA Simplifies Pricing Procedures

TWO major steps have been taken to simplify pricing of machines, parts and industrial equipment, industrial services and industrial machinery repair services the Office of Price Administration reported recently.

The action, which became effective March 31, 1945, will not change the present general level of maximum prices for the commodities and services, OPA said.

The two steps, which will simplify pricing for a great number of complex industries with an estimated yearly dollar volume of business of $20,000,000,000 are:

(*1*) *Revision of Maximum Price Regulation No. 136*—The language of this regulation has been simplified and shortened. Some commodities and services have been transferred to coverage by other regulations, and a few additional items have been brought under the revised machines, parts and industrial equipment regulation.

(*2*) *New Regulation for Industrial Services*—Provides suppliers of industrial services and industrial machinery repair services with a single simplified regulation. (Machinery repair services covered by this new regulation are confined to machines, parts and industrial equipment.)

Effective March 31, 1945, are the following: Revised Maximum Price Regulation No. 136—Machines, Parts and Industrial Equipment; Maximum

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Price Regulation No. 581—Industrial Services; Amendment No. 96 to Revised Supplementary Regulation No. 1 to The General Maximum Price Regulation; Amendment No. 57 to Revised Supplementary Regulation 11 to the General Maximum Price Regulation; Amendment No. 1 to Second Revised Supplementary Order 76.

Recent WPB Actions

P-152 Issued April 6, 1945 by Containers Division. Title "Metal Strapping". Permits use by anyone of AA-1 rating for uses other than container reinforcements; establishes certification procedure; provides for assignment of other ratings; tells how producers and distributors may obtain strapping; limits inventory.

L-244 AMENDED—Issued April 4, 1945 by Printing and Publishing Division. Title "Magazines and Periodicals". Revises delivery restrictions; further restricts inventory; adds new "one-time" certification.

L-245 AMENDED—Issued April 4, 1945 by Printing and Publishing Division. Title "Books and Booklets". Revises delivery restrictions and inventory restrictions; requires "one-time" certification.

M-65 AMENDED—Issued April 13, 1945 by Tin, Lead and Zinc Division. Title "Cadmium". More clearly defines uses of cadmium for plating purposes; reduces allowable cadmium-content in silver brazing alloys.

M-38 AMENDED—Issued April 31, 1945 by Tin, Lead and Zinc. Title "Lead". Effective April 1, 1945 restricts use of lead or lead products except as specified on List 1; provides for obtaining pig lead from Metals Reserve Co., restricts sale and delivery of certain new articles containing lead and restricts inventory; provides for exemptions under PR-25. Related form WPB-95.

L-120, DIR. 1—Issued April 3, 1945 by Pulp and Paper Division. After April 4, 1945 places restriction on manufacture of book grades of envelope and tablet papers and certain fine papers.

L-120, SCHED. 1, AMENDED—Issued April 3, 1945 by Pulp and Paper Division. Title "Paper and Paperboard for Use in Commercial printing". Revises recording requirements of special making orders where cover paper is involved and includes provisions for required statement from buyer after April 1, 1945.

L-120, SCHED. 2, AMENDED—Issued April 3, 1945 by Pulp and Paper Division. Title "Paper and Paperboard for Use in Book Publishing". Revises recording requirements of special making orders where cover paper is involved and includes provisions for required statement from buyer after April 1, 1945.

L-120, SCHED. 3, AMENDED—Issued April 3, 1945 by Pulp and Paper Division. Title "Fine Writing Papers Including Rag and Chemical Bonds, Writings, Ledgers, Weddings, etc." Revises title and recording requirements of special making orders where cover paper is involved and includes provisions for required statement from buyer after April 1, 1945.

L-120, SCHED. 5, AMENDED—Issued April 3, 1945 by Pulp and Paper Division. Title "Envelope Papers". Eliminates "24" in. (a) (3) for standard basis weights of the Appendix.

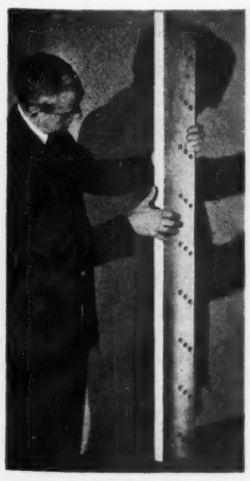
L-120, SCHED. 14, AMENDED—Issued April 3, 1945 by Pulp and Paper Division. Title "Paper for Use in Newspapers or Magazines". Deletes reference to multicolor printing for uncoated offset book papers and requires statement from buyer for cover papers as specified.

L-120 AMENDED—Issued April 16, 1945 by Chemicals Division. Title "Cellophane". Permits use of cellophane for automobile fog and frost shields; restricts use for advertising displays.

L-289 AMENDED—Issued April 16, 1945 by Printing and Publishing Division. Title "Greeting Cards, Etc." Amends delivery restrictions; provides for Division to determine classification of printed matter; restricts use of carry-over.

L-340 AMENDED—Issued April 16, 1945 by Printing and Publishing Division. Title "Governmental Commercial Printing and Duplicating. Amends inventory provisions to conform with other paper orders.

M-38, DIRECTION 1, REVOCATION—Issued April 17, 1945 by Tin, Lead and Zinc Division. Title: Lead from Metals Reserve Company. Revokes the direction; incorporates the provisions in par. (e) of M-38 as amended March 31, 1945.



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IT'S UP TO YOU TO HELP MAKE 2=3 WITH...

A job for seasoned executives—this 7th War Loan! Especially when we've got to make 2 war loans total just about as much as all 3 in 1944! Putting this over demands the combined and *continued* efforts of the "No. 1" men of American industry.

This means marshaling your plant drive to make every payday—from now 'til June 30th—do its share toward the success of the 7th. Directing the drive is not enough. It's equally important to check to see that your directions are being carried out—intelligently!

For example, has every employee had:

1. **an opportunity to see the new Treasury film, "Mr. and Mrs. America"?**
2. **a copy of "How To Get There," the new Finance Division booklet?**
3. **a new bond-holding envelope with explanation of its convenience?**
4. **7th War Loan posters prominently displayed in his or her department?**
5. **information on the department quota—and an urgent personal solicitation to do his or her share?**

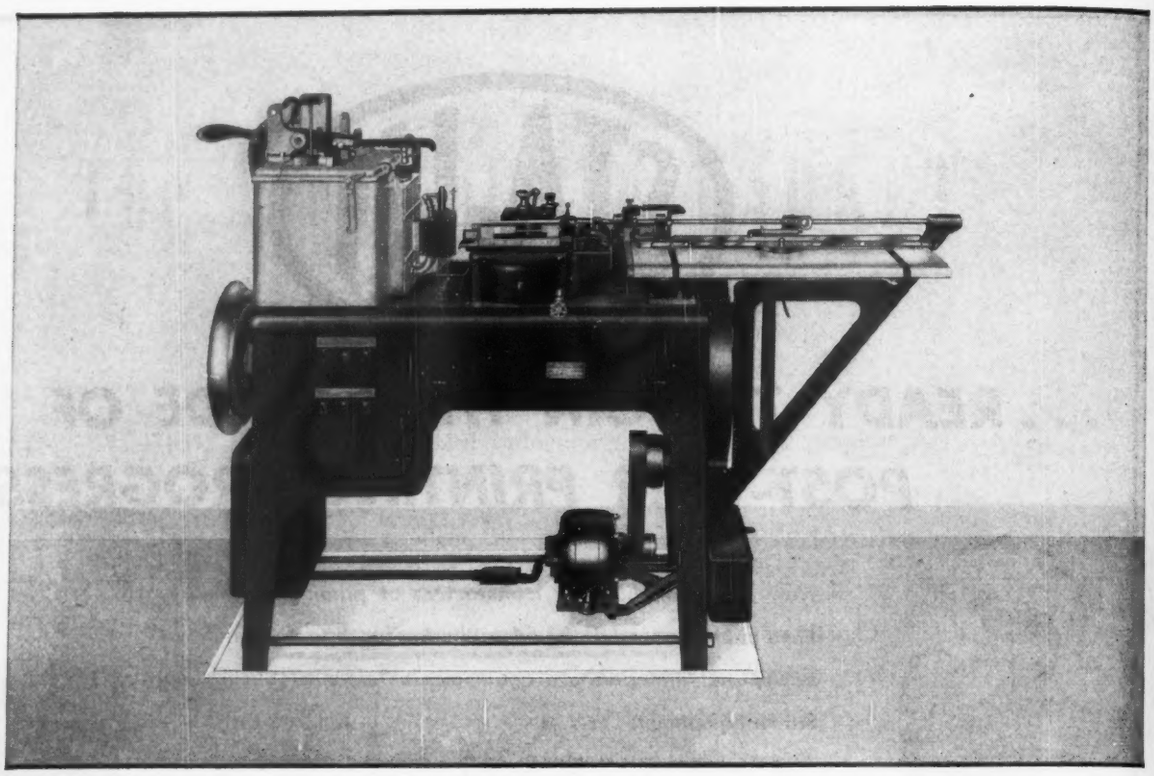
Remember, meeting—and beating—your highest-yet 7th War Loan quota is a task calling for "No. 1" executive ability. Your full cooperation is needed to make a fine showing in the 7th! Do not hesitate to ask your local War Finance Chairman for any desired aid. It will be gladly and promptly given.

If you haven't a copy of this important booklet, "7th War Loan Company Quotas," get in touch immediately with your local War Finance Chairman.

The Treasury Department acknowledges with appreciation the publication of this message by

PRINTING EQUIPMENT ENGINEER

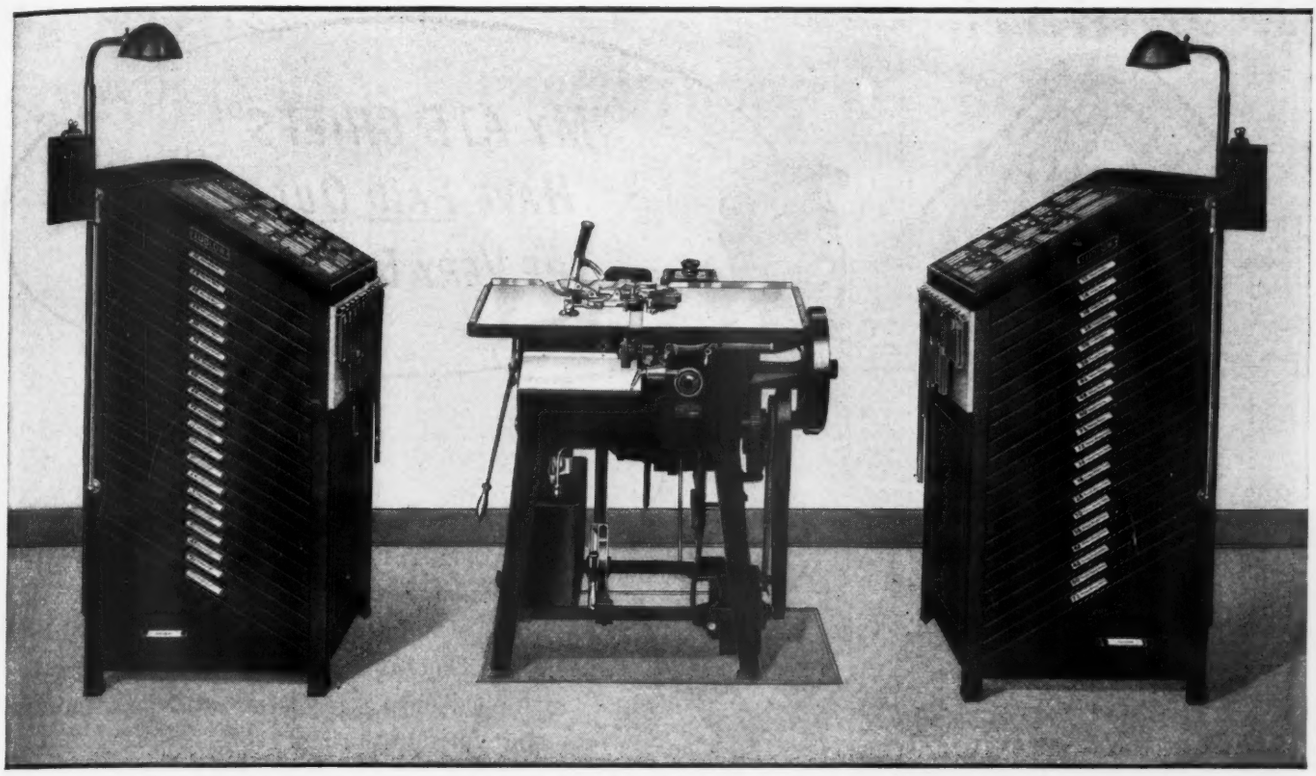
★ *This is an official U. S. Treasury advertisement prepared under the auspices of Treasury Department and War Advertising Council* ★



ELROD Features which newspaper composing-room executives find help them to operate more efficiently . . .

- An abundant supply of leads, slugs, rules and base, so necessary for efficient composing-room operation, is produced easily and economically with the Elrod.
- Strip material is cast on the Elrod with the minimum of attention by the operator—usually only occasional replenishment of the metal in the crucible and removal of the stacked lengths of strip from the delivery table.
- Leads, slugs, rules and base, ranging in thickness up to 36-pt. and in any desired height or length, are produced with a single machine—truly simple to operate.
- Formed of molten metal under pressure into a continuous strip as it passes through a water-cooled mold, Elrod-cast strip is exceedingly solid, and free from brittle breaks and welds. Elrod base stands up under severe stereotyping pressure.
- The simplicity of the Elrod, in construction as well as in operation insures trouble-free and dependable service.

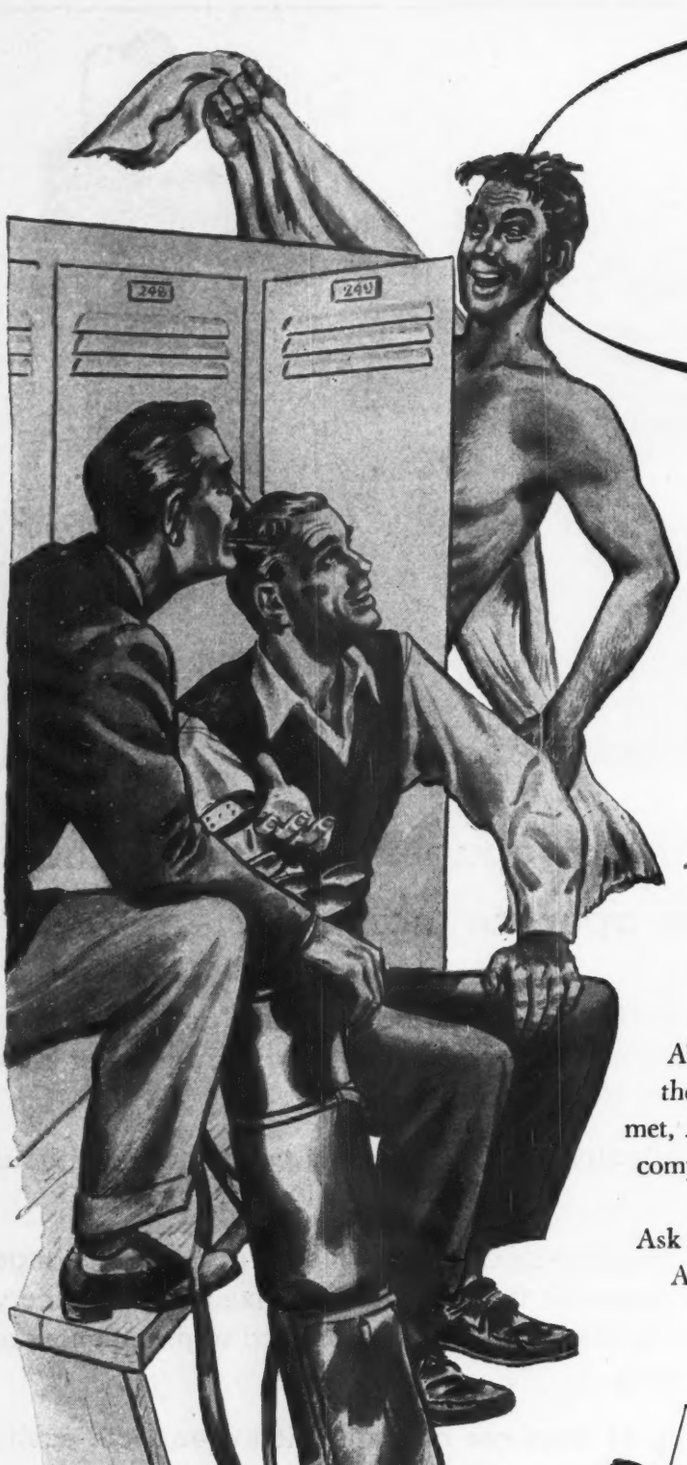
Ludlow Typograph Company, 2032 Clybourn Ave., Chicago 14, Illinois



LUDLOW Features which newspaper composing-room executives find help them to operate more efficiently . . .

- Production of display lines is expedited because of matrix "gathering," ease of spacing and other short-cuts in composition. Type supply never runs out with the Ludlow system of slugline composition.
- The Ludlow can be used effectively by competent compositors without extensive special training.
- The Ludlow system affords complete flexibility, with easy and rapid change of typeface size and style. Superior figures, lines of mixed faces, grocery ad composition, large price figures, and other specialized requirements are easily handled the Ludlow way.
- Quadding-out and centering of lines are accomplished even more easily and quickly than spacing full-measure lines.
- With display lines Ludlow-set, the composing room can achieve the ideal of all-slug make-up.
- Ludlow slugs stand up under stereotyping pressure—eliminating make-overs and saving time and material.
- Ludlow equipment is dependable and its operation is remarkably free from mechanical trouble.

Ludlow Typograph Company, 2032 Clybourn Ave., Chicago 14, Illinois



ALBERT H. VELA, of New York City, is speaking. For eight years, now, he has been running a large volume of all kinds of high quality work, including four-color process jobs, on his ATF Big Chief offset presses. He says, "they have multiplied the range of our work and increased our sales and profits."

ATF Chiefs are particularly suitable to printers, because they abound in features that speed up and simplify operation. Sometimes they are little points, like a feeder's ability to handle light stock smoothly, or simple impression control without need of a wrench. But they all add up to make the ATF Chiefs labor-savers and money-makers.

ATF Chiefs and ATF Kellys make an ideal team for the modern printer. When civilian needs can again be met, ATF will have everything for an offset department complete from darkroom to pressroom. Right now, any ATF press can be reserved for postwar delivery. Ask the man who represents ATF for a copy of "Offset Answers," and to tell you all about the ATF Civilian Priority Delivery Plan, or write to us direct.

ATF CHIEFS are made in three sizes: 14x20; 17x22; 22x29

ATF

American Type Founders

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